

*Evaluation of the
Self-Employment
Assistance Program*

by Frank Graves and
Benoît Gauthier
Ekos Research Associates

Macro Evaluation
Evaluation and Data Development
Strategic Policy
Human Resources Development Canada

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Project Team

Frank L. Graves	SeniorAdvisor
Benoit Gauthier	Project Director and Co-investigator
Tim Dugas	SeniorAdvisor
Janice Remai	ProjectManager
Susan Galley	SurveyCoordinator
Patrick Beauchamp	Consultant
Ken Cheung	Econometrician
Susan Morris	ResearchAnalyst
Melissa Bulin	ResearchAnalyst
Martin Gervais	ResearchAnalyst
Mark Anderson	SurveySupervisor
Robin Eckford-Brown	DataBase Manager
Heather Chang	DataBase Manager
Lise Paquette	Word Processing and Computer Graphics
Diane Beauvais	Word Processing and Computer Graphics

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Abstract

The Self-Employment Assistance (SEA) program is a federally funded program designed to promote self-sufficiency in the labour market through self-employment. This evaluation of SEA was to determine the effectiveness of the SEA program in reaching its stated objectives and the impacts of the program on participants. Key evidence on program impacts and effects is based on a non-experimental survey design, including a survey of SEA participants and a comparison group of non-participants. It should be noted that the SEA program is still relatively new, and the evaluation evidence collected here refers to a relatively short post-program period.

The evaluation points to a strong rationale for the SEA program. There is sufficient demand for the program to justify the SEA approach. In many centres, demand for the program exceeds available resources and the proportion of UI recipients who participate in the program is well below comparable international experience. The design of the program also appears plausible; participants report relatively high levels of satisfaction with the process and current program parameters are consistent with the elements which have been found to be successful in program elsewhere.

SEA provides social and economic benefits for participants which correspond to the program rationale and to the expectations of participants. Short-term business survival rates are high. In the year following program participation, participants experience positive earnings effects, though a high incidence of concurrent paid employment by program participants indicates that, for some, the new business is not a sufficient source of income.

The UI cost of the SEA program is high. However, participants are less likely to collect UI or social assistance in the post-program period. The evaluation estimates that it will take more than three years to recuperate this public investment in a narrow UI accounting perspective (six years if the deadweight factor is taken into consideration). This does not include benefits of SEA sponsored businesses to local economies in terms of spin-off and employment creation.

An important concern uncovered by the evaluation is that about half of the clients are subsidized to start a business they would have started anyway (deadweight). The issue of displacement is also often raised as a potential negative impact of self-employment assistance programs but, while the evidence here is highly qualitative, no evidence of employment displacement was observed. In view of the very short post-program period on which these conclusions are based, follow-up research should be considered.

Management Response

HRDC's role is not one of starting business but of assisting clients to become self-sufficient.

Self-Employment is a viable method for increasing labour market self-sufficiency. Compared to unemployed persons:

- SEA participants used less UI and less social assistance
- Had higher earnings
- Earned more of their earnings from self-employment.

This is in line with the intent of the program which is to *"promote self-sufficiency in the labour market through self-employment"*. This objective will continue to be reinforced to ensure delivery agencies clearly understand the objective of the program, as HRDC's role is not one of starting businesses but of assisting clients to become self-sufficient.

SEA, which is delivered by local agencies in close cooperation with local CECs, is a good example of improved results through the application of local strategies and partnership.

Modifications to the current Self-Employment Employment Assistance Program will take into account the results of the evaluation.

- The program appears to suffer from conflicting objectives.
 - High level of non-incremental effort: 40-60 per cent "dead weight"
 - high level of labour market self-sufficiency of participants before they apply to SEA
 - 41 per cent of rejected applicants went on to establish their own business

This has been of concern since the program was implemented in May 1992. In HRDC's policy and guidelines with regard to SEA, there are provisions to target SEA interventions at the "most in need" client. Most in need" is defined as someone who could not start his/her business without the assistance of the program.

In determining the selection process, two issues were always in the forefront: "Creaming for Success" versus helping the client most "in need". The local delivery agencies were certainly concerned that they achieve a reasonable level of success, and they felt that, in order to do this, they be given some measure of control over selection. The CEC, conversely, was concerned that "Most-in-need" clients not be overlooked based on their chances of succeeding. This created a need for negotiation, for consultation with the business community and the process of identifying a good selection plan that took into account all of the needs. In fact, these selection plans, once negotiated, could be monitored and changed as the needs of everyone involved changed.

The selection methods and process will be looked at and modified if necessary to facilitate access of the most in need clients to the program.

- Equity groups were less likely to be selected for program participation and had less somewhat less favorable outcomes than non-equity group clients.

The evaluation was conducted in July 1994 and actually surveyed the first group of individuals to enter in SEA. For the first time Self-Employment Assistance was available in large urban centres

(The former SEI program was available only in Community Futures areas - mainly rural areas). Equity groups are often more organized in urban centres which could partly explain their under representation on the program.

HRDC will monitor very closely the selection of participants to ensure fair participation of equity groups. Incentives and measures to assist members of equity groups to access self-employment and to succeed should be put in place under the HRIF Self-Employment Measures. Such measures could be additional assistance for family/dependent related expenses, increased income support once UI exhausts, longer period of support, special prescription in delivery agencies agreements, contracting with partners who represent special interest groups, looking at ways to work with private sector lenders to assist equity groups to access capital, etc.

- SAR participants do well in terms of business success however half of them return to social assistance within a short time frame:

A program which contributes to assist 49 per cent of its social assistance recipients clientele to enter or re-enter the labour market is actually achieving interesting results. However, HRDC should look at ways to increase successes for SAR participants:

- additional/longer period of technical support and "after care" support,
 - assistance to access capital: peer lending, workers cooperatives, etc.
 - longer duration of income support
 - more assistance during the period preceding business start up
 - discussions with provinces to increase flexibility in the application of social assistance rules.
- The training component of the SEA program was not found to contribute to business success.
- training outside the program was associated with higher numbers of job created
 - hours of training is not a sensible enough measure of quality of training?
 - international experience indicates that review of business plans, training and advising can reduce failure rates by 50 per cent.

In order to be relevant, training must be tailored to the needs of the group or individuals. People learn in different ways. Therefore, training for SEA clients must be tailored to the needs of the clients. In order for each office to do this, local level flexibility must be permitted. There should be no one size fits all solution. Guidelines that define training in an all-encompassing way and that encourage creativity will be developed.

Introduction

Self-employment assistance programs are viewed as a means to help the unemployed achieve labour market self-sufficiency by creating their own job.

Self-employment assistance programs for the unemployed have gained widespread appeal in the last decade. Changes in the structure of the economy, persistent unemployment and slow job creation have pushed policy-makers to search for new reemployment strategies. Self-employment assistance programs are viewed as a means to help the unemployed achieve labour market self-sufficiency by creating their own job.

The international experience with self-employment assistance programs has generally been positive. Existing studies of these programs suggest that they are successful in reducing dependency on unemployment insurance and increasing participants' incomes. The success of these programs led Canada to establish its own initiatives in this area. Self-employment assistance for the unemployed is also consistent with current social policy trends in Canada and elsewhere which have moved toward more active programming to encourage self-sufficiency among the unemployed and away from more passive forms of income support which often act as disincentives to re-enter the labour market.

The Self-Employment Assistance program is a federally funded program coordinated locally through Canada Employment Centres. It replaced the Self-Employment Incentive (SEI) Option of Community Futures in May 1992. The SEI option was established in 1987, with the objective of "promoting labour market self-sufficiency through self-employment". Income support was provided to participants for one year, during which time they would start their own business. The option was delivered solely in Community Futures areas and was accessible to Unemployment Insurance (UI) or social assistance recipients (SAR).

All funding for SEI was through the Consolidated Revenue Fund. Initially, Unemployment Insurance regulations did not allow clients to receive Unemployment Insurance benefits if it was their intention to become self-employed. The passage of Bill C-31 in November 1990 resulted in authority incorporated into the Unemployment Insurance Act and regulations that specifically provides for self-employment under the Developmental Uses of UI funds.

Like its predecessor, the objective of the Self-Employment Assistance (SEA) program is to promote self-sufficiency in the labour market through self-employment. Differences between the SEI and new SEA program are: replacement of the previous flat rate payment system to a variable rate based on prior earnings (for UI recipients), resulting in an increase in income support; inclusion of a mandatory training element; and extension of the eligibility criteria to include both Community Futures and non-Community Futures areas. In addition to these changes, the SEA program has prioritized designated groups (i.e., women, aboriginals, visible minorities and persons with disabilities) for participation in the program. Finally, an SEI requirement for a business plan has been relaxed under SEA. Development of a business plan is now often incorporated as part of the training process.

The purpose of this evaluation is to "determine the effectiveness of the SEA program in reaching its stated objectives and the impacts of the program on participants" (*Terms of Reference*, p. 2). The SEA program is still relatively new, and the evaluation evidence collected here refers to a relatively short post-program period (between three and eighteen months following program

participation). This interim evaluation study, while providing limited evidence on the ultimate or final outcomes of the program, will provide useful interim information to support policy decisions about the program to improve the delivery and effectiveness. The evaluation also fulfils the Treasury Board requirement for cyclical evaluations of government programs.

Organization of the Report

This report contains seven additional chapters. Chapter one provides a brief description of the program. Chapter two presents the conceptual approach and methodological design for the study. Chapter three presents a profile of SEA participants and a brief overview of businesses started under the program. Chapters four and five present findings to address evaluation issues related to program rationale and impacts and effects. Alternatives are discussed in chapter six and conclusions of the study are presented in chapter seven.

1. Program Description

Participants receive 52 weeks of income support. Where participants' current UI entitlement is insufficient to cover SEA participation entitlement is extended to cover the participation period.

The national SEA guidelines, contained in ED 35 (chapter 35 of Employment Programs and Services Procedures Manual), provide general program information and delineate the basic requirements and regulations for program delivery. Individuals eligible for SEA include qualified UI claimants, individuals in receipt of or eligible for social assistance, and TAGS participants. Applicants must be legally entitled to work in Canada, have not participated previously in self-employment activity through a similar program funded by HRD, must have attended an orientation session provided by the delivery agent, and have completed a self-evaluation exercise on suitability for self-employment.

Participants receive 52 weeks of income support. Where participants' current UI entitlement is insufficient to cover SEA participation (they do not have 52 weeks left of UI benefits), entitlement is extended to cover the participation period. However, admission to the program should not result in an individual receiving more than 156 weeks (i.e., three years) of support (by any means) from HRD.

Program participants must make a personal equity contribution to their self-employment business in the amount of 25 per cent of the total anticipated funding to a maximum of \$4,000. Equity may be cash or in-kind (e.g., computers, tools, equipment).

The program is funded through the Developmental Uses of UI (Allotment 3 1) for UI recipients, and the Consolidated Revenue Fund for social assistance recipients (SAR) and TAGS participants. Unemployment Insurance participants will receive either a fixed sum (basic participant allowance) or their UI benefit equivalent, whichever is greater, for the duration of their participation. SAR participants receive the basic participant allowance. TAGS participants continue to receive their TAGS income support. The basic allowance is the same for both SAR and UI participants and is calculated based on whether participants reside with their parents, amount of spousal income and the number of eligible dependents. Supplementary allowances may be provided to participants while developing or implementing their business plan or while on course or in training. These allowances include: travel; dependent care; disability; living away from home; and commuting (the latter two being available only to those on course or in training).

The business venture must be full-time (i.e., a minimum of 30 hours a week) and participants must be self-employed and not working on commission. The business must also be suitable for public funding in that it does not exploit gender, religion or politics. Partnerships, limited companies, worker cooperatives and franchises are all permitted subject to some conditions. Development of a business plan (previously a prerequisite for program participation under the former SEI program) has now been incorporated as part of the SEA training process.

Earnings generated through self-employment are not deducted from participants' UI benefits. Any earnings from paid employment received by the participant during the program period are deducted from regular UI benefits according to the 25 per cent allowable earnings rule. However, for SAR participants, earnings are deducted dollar-for-dollar from their social assistance benefits.

SEA program activities are carried out primarily at the local level. In most cases, CECs are responsible for administering the delivery of the program and have full autonomy (within program guidelines) once they have received their budgets from regional HRD. The actual delivery of the program is usually carried out by Business Development Centres (BDC) in Community Futures areas and delivery agents in urban areas. Eligibility for the SEA program has now been extended to areas throughout the country, though the program may not be available in some rural or urban areas that do not have a BDC/delivery agent. In some instances a neighbouring BDC will extend its reach to take in rural areas not covered by Community Futures.

The SEA program has prioritized designated groups (i.e., women, aboriginals, visible minorities and persons with disabilities) for participation in the program.

Determination of Eligibility/Suitability

Once a potential participant expresses interest in SEA, their eligibility and suitability must be determined. CECs are responsible for determining UI or TAGS eligibility. Social assistance recipient's eligibility is determined either by the CEC or by the delivery agent. Delivery agents determine applicant's suitability for SEA through orientation sessions, one-on-one interviews, and an evaluation of the applicants' business ideas. The primary purpose of the orientation session, or one-on-one interview, is to serve as a pre-screening process to ensure that potential applicants have a clear understanding of what is expected of them. At this point applicants are also required to do a self assessment.

Selection Process and Criteria

After the initial information session applicants go on to develop their business plan with the assistance of the delivery agent. The decision to recommend (or not) an applicant is based on the following criteria: competition (i.e., presence of similar businesses in the area); viability of the business; skills and experience; the degree to which SEA will advance the applicant's career; potential for incremental employment; economic contribution to the community; and the applicant's level of commitment. Local priorities and equity priorities may also be taken into consideration.

Once the delivery agents have screened the applicants, they normally go to the selection committee. Once the committee makes its recommendation, the CEC is informed. For SARs, a letter is sometimes sent to the Ministry of Social Services, but in most cases it is up to the SARs to notify them of acceptance. Once an applicant has been recommended and approved by the CEC, the CEC authorizes their admission (i.e., funding) to the program. Letters of agreement are signed between UI/TAGS participants and the CEC. In most cases, SARs sign their letter of agreement with the delivery agent.

Implementation

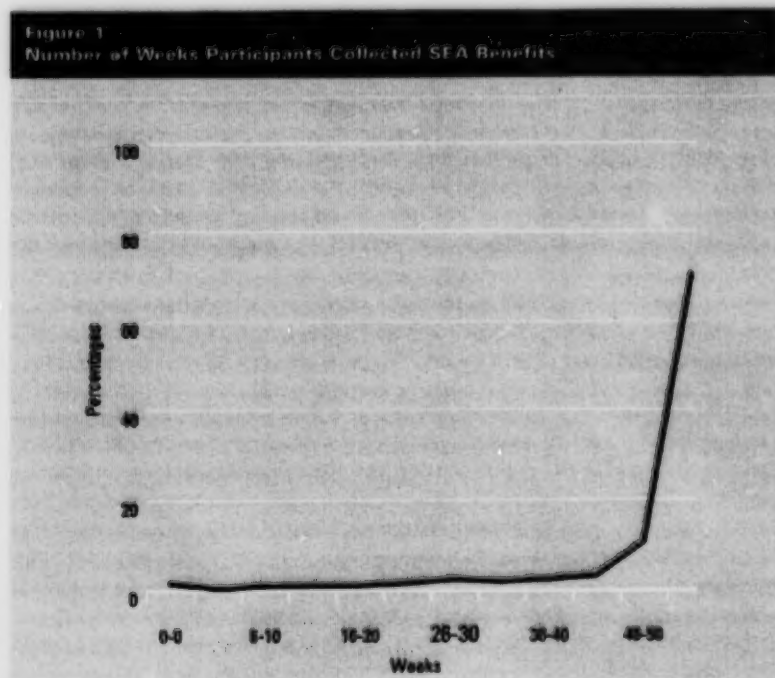
Delivery agents are participants' primary contact during implementation. They are responsible for assisting participants with their business plan (if not completed), providing training, counselling and monitoring. Training is a mandatory component of the program. The type of training provided by the delivery agents may be tailored to the individual and includes entrepreneurial training such as accounting, management and marketing. The training may be either formal (e.g., classroom) or informal (one-on-one basis). Some delivery agents will send participants on skills upgrading courses.

Participants are monitored on a regular basis. Most CECs have set a minimum requirement for on-site visits (from once a month to quarterly). Between site visits, problem solving is done over

the telephone. Participants are also required to submit their UI report cards as well as a monthly report to the delivery agent.

The administrative and survey data suggest that the vast majority of SEA participants completed the program and were successful in starting a business. The majority of SEA participants collected UI benefits for the full program period of 52 weeks (Figure 1). Over 70 per cent of participants collected benefits for over 51 weeks. While the survey did not ask participants *explicitly* whether they had actually started a business under the program, fully 97 per cent of those surveyed were able to provide a date when their business started to operate.

The completion rates for the SEA program are in contrast to the results of the evaluation of American self-employment assistance experiments (Abt, 1995). In Demonstration projects in Massachusetts and Washington to provide self-employment assistance to the unemployed, program participants started businesses only 55 per cent of the time. Participation in the experimental programs, however, increased the likelihood of starting a business.



2. Approach and Design

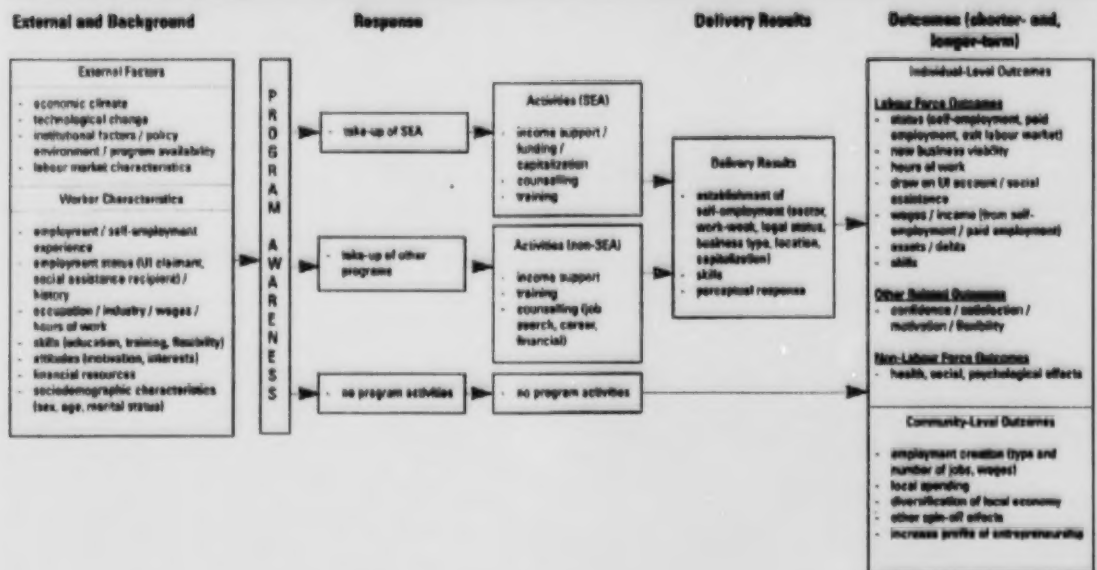
This chapter presents the conceptual approach used. In this evaluation, the questions addressed and the methodological tools utilized. Its purposes are to demonstrate the rigour of the approach and to document the intellectual basis of the analyses.

Conceptual Model

The purpose of the conceptual model is to identify the relevant theoretical variables influencing the outcomes of the program and to posit a hypothetical causal relationship among the variables. The model represents an *a priori* conceptualization of the way the world should work. This model also guides development of hypotheses about the effects of SEA and subsequent measurement and testing procedures.

Figure 2 presents a conceptual model for understanding the labour market experiences of workers and, in particular, for hypothesizing about SEA program effects. The conceptual model is based on a review of the literature and the operation of SEA. While the model has been designed to accommodate a variety of responses to unemployment, explicit consideration is given to self-employment as a response to unemployment. The conceptual model may be divided into four components: external and background factors, response, delivery results, and outcomes.

Figure 2
Evaluation of the Self-Employment Assistance Program Detailed Conceptual Model



The response to adjustment occurs in several stages, including awareness of reemployment programs and options, the particular action taken in response to unemployment and participation in reemployment activities.

External and Background Factors. There are a number of exogenous (beyond the control of the program) external and background factors which influence the labour market experiences of workers and their success in reentering the labour market following a period of unemployment. Some of the key factors in the external environment include the economic climate, technological change, institutional factors and labour market characteristics. In addition to conditions in the external environment, the characteristics of individual workers will also affect their labour market experiences. These micro-level variables include socio-demographic characteristics (e.g., age, gender), employment history and access to financial resources.

Response. The response to adjustment occurs in several stages, including awareness of reemployment programs and options, the particular action taken in response to unemployment (three options were considered here -participate in SEA, participate in an alternative adjustment strategy or take no action), and participation in reemployment activities (which are related to the type of action taken).

Delivery Results. Delivery results refer to the direct or immediate outcomes of the response to unemployment. The logic of the conceptual model indicates that delivery results are dependent on the response of the worker to unemployment and the relevant external or background factors.

Outcomes. Outcomes refer to the final effects of the response to the adjustment situation. Outcomes are dependent on delivery results and the factors which influence the delivery results. Outcomes for the evaluation of SEA are viewed as occurring at the level of the individual and at the level of the community. It is helpful to distinguish between the shorter term or relatively shorter term outcomes and longer term outcomes. Shorter term outcomes have traditionally been defined as occurring within three months of the completion of activities and longer-term outcomes as occurring within one or two years of the treatment. The evaluation literature typically examines business survival rates in terms of a two to three year time period. This evaluation of the SEA program, occurring about eight months following program completion, focuses on shorter-term or interim outcomes. For a fuller assessment of the SEA, a longer time frame is preferable (although not feasible in this evaluation).

Evaluation Issues

The Terms of Reference for the study identify four broad issue areas which formed the basis for the development of the evaluation methodology and the thrust of the overall evaluation: program rationale, objectives achievement, impacts and effects and alternatives. Under these four categories are 14 evaluation issues. Following is a discussion of each of the issues for this evaluation.

Program Rationale. The objective of the evaluation with respect to program rationale issues is to examine the plausibility of the program's design and logic. What evidence exists that self-employment assistance is an effective solution compared to other reemployment strategies? To what extent are SEA program parameters consistent with other self-employment programs in other countries? Study of the plausibility of program design should also include an analysis of the role of parameters of the program, in program success: What aspects of SEA

encourage/discourage success (e.g., training level, duration of funding and eligibility criteria such as capitalization in program success)? Another aspect of program rationale is continued need and relevance of the program.

Objectives Achievement. Objectives achievement issues refer to the special class of effects for which the program is accountable. The objective of the SEA program is to increase the labour market self-sufficiency of UI claimants and social assistance recipients through self-employment. The question of objectives achievement may be considered in terms of a counter-factual hypothesis: What would have happened in the absence of the program? or To what extent can impacts and effects be attributed to the program? Key indicators of program objectives include the achievement of labour market self-sufficiency and reduced dependence on social assistance and unemployment insurance following program participation. To what extent are SAR SEA participants less likely to receive social assistance following participation than the comparison group and to what extent are UI claimant SEA participants less likely to receive UI following participation compared to non-participants? The issue is complicated in the current context by the fact that self-employed individuals do not accumulate insurable weeks which would allow them to collect unemployment insurance benefits in the event of business failure. For those program participants who are not eligible for UI, cross-over to the social assistance system or number of weeks worked is a more meaningful measure of dependence. Other indicators of objectives achievement include earnings and job creation.

Another aspect of the analysis of objective achievement is non-incremental program effort: To what extent would program participants have started self-employment in the absence of the program? Self-reports of participants provide important evidence on this issue, as well as rates of self-employment of non-participants groups (e.g., rejected applicants, general UI claimant population).

Impacts and Effects. Impacts and effects refer to the broader category of program outcomes. Outcomes may be intended or unintended products of the program and as far as analytically possible should consider SARs and UI claimant participants separately. The Terms of Reference for the study name a number of potential impacts and effects of SEA which are examined by this evaluation:

- return on investment for participants, HRD, and the community;
- impact of SEA on the UI Account;
- displacement effects as a result of SEA;
- job creation; and
- employment and earnings history following program completion (e.g., continuation of self-employment, transition to income support/paid employment or exit from the labour force, weeks worked, earnings, etc.).

The Terms of Reference for the study also requested that program delivery issues be examined. Delivery of the SEA is localized and some variability in program criteria and parameters exists. The evaluation documents the extent of similarities and differences in program delivery, as well as equity of access across provinces.

Alternatives. The forward-looking part of the evaluation is based on the alternatives question. The evaluation focuses on the cost-effectiveness and efficiency of the SEA program with a view to improving program benefits within the current budget allocation or achieving current benefits at a lower cost. The international experience with self-employment assistance programs is a valuable source of ideas and evidence on improving cost-effectiveness and efficiency. The views of program participants and delivery agents are also examined.

Methodological Approach

The evaluation of the Self-Employment Assistance program is based on multiple lines of evidence. Participant profile data and the estimation of program impacts is based extensively on the survey evidence. However, because many of the evaluation issues focus on program process and delivery and given the relative recency of participants' experience in the program, the qualitative evidence is also given considerable weight in this analysis. Following is a description of the lines of evidence for this study.

Survey Evidence

Program Participants

Two surveys were conducted for this study: a telephone survey of program participants and a comparison group of non-participants. The program participant sample was selected from the Participant Information File (PIF).

The sample was restricted to program participants who entered the program in fiscal year 1992/1993. In total, 1,479 interviews were conducted with program recipients who were eligible for unemployment insurance benefits. Interviews were conducted between July 14 and July 29, 1994. Respondents were interviewed between three and eighteen months following completion of the program (averaging about 40 weeks). It should be noted that this is a relatively short post-program period and outcome measures should be considered to be shorter-term indicators of program success. The response rate for the participant group was 62 per cent while the refusal rate was 10 per cent -other cases had invalid telephone numbers, could not be located, etc.

An additional 100 interviews were conducted with social assistance recipient program participants. Because SARs do not represent a large proportion of program participants, this sample was viewed as adequate to test any broad differences in the experiences of this group compared to regular UI claimants. Because a comprehensive sampling frame of SAR program participants was not available, a sampling frame of SAR participants was compiled based on program participant lists requested and forwarded by BDCs. The sample should not, therefore, be considered to be representative of this group of program participants. As well, a direct comparison group does not exist for the SAR participant group.

It should be noted that this is a relatively short post-program period and outcome measures should be considered to be shorter-term indicators of program success.

Comparison Groups

In a non-experimental design, it is not possible to guarantee that the comparison group will not differ systematically from program participants. While statistical methods may be used to control for some biases, if the comparison group is improperly selected, it may be virtually impossible to make the statistical adjustments to disentangle program effects from other sources of non-random variation in the dependent variables. The selection of the comparison group, therefore, was a key decision in the development of the overall methodological approach for the evaluation of the SEA programs.

In selection of the comparison group, first consideration was given to individuals who choose self-employment without the assistance of SEA. Apart from self-selection bias, this pool of

individuals would be expected to be most like the SEA participants. While this comparison group would be a valuable source of data to assess the impact of SEA on the success of new business ventures, it does not answer the broader question of what would happen in the absence of the SEA program and more specifically how does SEA participation compare with the experience of individuals who attempt to find paid employment? Or in other words, is it a good idea to encourage self-employment?

In order to test this broader question, the comparison group was defined as the universe of the target population of the SEA program. In the broadest sense, regular UI recipients are the target population for the SEA program. However, the program is effectively restricted to those individuals who would seriously consider self-employment as an alternative. This is a potential source of self-selection bias which would make the inclusion of individuals in the comparison group who were not interested in self-employment biasing. It is not known to what extent interest in self-employment may be correlated with other motivational factors, biasing the study results if not controlled for at the sample selection stage. Therefore, screening based on individuals' self-rated interest in establishing a business was used at the sample selection stage. In particular, responses to the self-rated interest question were monitored and then weighted to match the distribution of responses provided for this question by SEA participants. This screening method ensured that the comparison group was similar to the program participant group in terms of their self-rated interest in establishing a business. Although this procedure did not eliminate the need for models to address potential self-selection biases, it reduced a major source of bias in a more direct and accurate manner.

Main comparison group. The main comparison group was constructed using a two-step approach. First, a random sample of individuals who had collected regular unemployment insurance benefits during the period in which program participants used the SEA program (i.e., fiscal year 1992/93) was selected from the HRD Status Vector file. All SEA program participants were eliminated from this file. The comparison group sample was stratified to match SEA participants in terms of timing of the initiation of the UI claim and location (using Canada Employment Centre location). Within these strata, members of the comparison group were randomly selected for participation in the survey.

Second, in order to ensure that these regular UI recipients were comparable to program participants, a survey screening procedure was used to minimize the number of individuals in the comparison group sample who were *not* interested in pursuing self-employment at the time their UI benefits commenced.¹ Interest in self-employment, as well as province and start of UI claim, were monitored during the collection of the data to ensure that the participant and comparison groups were similar in these aspects. A proportion of respondents who expressed little interest in starting a business at the time they were unemployed were screened out of the survey interview. Interviews were conducted between July 26 and August 19, 1994 - on average, some 65 weeks after the end of the respondents' UI claim.² The response rate for the comparison group was 28 per cent while the refusal rate was 19 per cent - the definition of such rates is much more difficult to determine for a sample which is built from up-front screening like this one than from a traditional base like the SEA participants'. In total, 2,700 interviews were completed with comparison group individuals.

A second comparison group. A second "comparison" group was constructed based on rejected applicants. Like the SAR participants, a comprehensive sampling frame for rejected applicants

¹ Comparison group respondents to the survey were asked to rate their interest in starting their own business at the start of their claim, on a seven-point scale. Responses were monitored then weighted to match the distribution of SEA participant responses on this item.

² Remember that the SEA and comparison samples were matched on the timing of the initiation of the claim.

was not available. A partial sampling frame was developed based on lists of individuals who were not accepted into the program that were obtained from BDCs. While efforts were made to secure lists from as many BDC's as possible, the final sampling frame did not include *all* rejected applicants to the program and, therefore, the final sample should not be considered nationally representative. In total, 265 interviews were conducted with rejected applicants. Rejected applicants were surveyed both to explore their experience with the program and to compare the outcomes of these individuals with program participants.

A similar survey instrument was administered to both program participants and the comparison group.

Survey Instruments

A similar survey instrument was administered to both program participants and the comparison group. Participants were asked additional detail on their satisfaction with the program and on their SEA business. Comparison group respondents who were self-employed answered business-related questions similar to the participant group. For those in the comparison group who were not self-employed, detailed information was obtained on their current or most recent job. Both program participants and the comparison group responded to similar items on their employment history, attitudes and socio-demographic profile.

Other Evidence

In addition to primary survey evidence, this evaluation of SEA is based on five other sources of information. These are:

- *Document Review.* Program documents, including the Evaluation Framework Report, program guidelines and procedures and applicant information were reviewed. A complete and detailed understanding of the program was considered to be particularly important given the great deal of variation in program delivery across regions and within regions. Program documents were examined to gather details on program origins, program objectives, program structure and dynamic and the integration of SEA with other program offerings.
- *Literature Review.* A review of the literature was conducted at the early stages of the evaluation to understand the theoretical rationale for self-employment programs for the unemployed and to provide a critically informed perspective on labour adjustment to guide the conceptualisation and methodological design of the study. Prior empirical evaluations of the self-employment assistance programs in Canada and in the US were examined, as well as general theoretical material on labour market theory and processes. An internal departmental paper, "Self-Employment for Unemployed Workers: Evaluation Lessons Learned" was reviewed and these findings have been compared to the results of the current study where appropriate. A literature review was also conducted to examine the international experience with self-employment assistance programs. Self-employment assistance programs in the United States and Europe were studied with a view to suggesting possible alternatives to the Canadian program. A bibliography is included.
- *Review of Administrative Data.* Two types of secondary data sources were examined for this evaluation: program data and HRD and Revenue Canada administrative data. The SEA Program Information File was analyzed to provide crucial program profile information. Government administrative files, including the Status Vector/BNOP file, Record of

Employment, and T1 and T4 files were used to supplement survey data by providing important historical employment and earnings information.

- *Key Informant Interviews.* Twenty key informant interviews were conducted with SEA program personnel during the early stages of the evaluation. These interviews aimed at describing the regional program implementation and highlighted discrepancies between the local practices and the program logic and implementation developed nationally. Forty interviews were also conducted with representatives from Business Development Centres (or *Centres d'aide à l'entreprise*). These interviews collected information on program implementation, as well as perceived impacts and effects.
- *Focus Groups.* Five focus groups were conducted with program participants and an equivalent number were conducted with non-participants. The purpose of the focus groups was to provide more detailed information on the *felt* experience of program participants and to better understand the perceived expectations and barriers of those who did not choose to pursue self-employment. Issues covered included reasons for participating/not participating in the program, barriers encountered, alternatives analyzed, and suggestions for improving the program.

Caveats

In order to provide rigorous answers to the evaluation issues, the study collected several distinct lines of evidence. The use of multiple lines of evidence is intended to correct the deficiencies and biases inherent in relying on a single type of evidence. The overall synthesis of distinct lines of evidence yields a more balanced and complete picture of program performance.

Comparison Groups Composition. The most important source of evaluation evidence on program impacts was a survey of unemployment insurance recipients, including SEA participants and a comparison group of workers who did not participate in SEA. There are strengths and weaknesses associated with this comparison group design. The most accurate way to assess the incremental impact of the SEA program would be through an experimental design where individuals are randomly assigned to treatment and control groups.³ However, logistical and ethical considerations do not usually permit this preferred approach in employment research. Apart from an impractical experimental design, the quasi-experimental approach implemented is one of the strongest methodological designs available to assess the effectiveness of employment interventions. It involves an examination of the outcomes of SEA participants and a sample of workers drawn from a comparable group who did not use SEA.

As with any non-experimental design, there is the possibility that program participants could differ significantly from the comparison group in terms of background characteristics⁴ and other factors which may influence outcomes independently (or in interaction) with the program itself. These factors must be considered carefully in this type of design. Simple comparisons between program participants and the comparison group may yield a biased estimate of program impact because of pre-existing differences between the two groups. This problem was dealt with to some extent in the initial selection of the comparison group: a random sample of regular unemployment insurance recipients who were screened based on expressed interest in self-employment.

Differences between the participant and comparison group were also addressed during the analysis. The comparison group data are weighted based on three variables: province, benefit commencement period and interest in self-employment. As well, statistical controls in the

³ Although there is considerable debate concerning the external validity costs associated with the increase in internal validity derived from such experimental control.

⁴ This is analyzed in-depth in Chapter 4.

econometric modelling were implemented to control for biases not controlled for at the sample selection stage. Multivariate statistical techniques are used to provide estimates of program impacts that are unbiased by differences between the respondent samples. Additionally, sample self-selection was analyzed through differencing equations and the development of Heckman-type correction variable. Differencing equations (i.e., the modelling of preprogram behaviour using antecedent data, controlling for treatment group membership) proved that antecedent data accurately controlled for compositional differences, within a margin of approximately ten per cent.

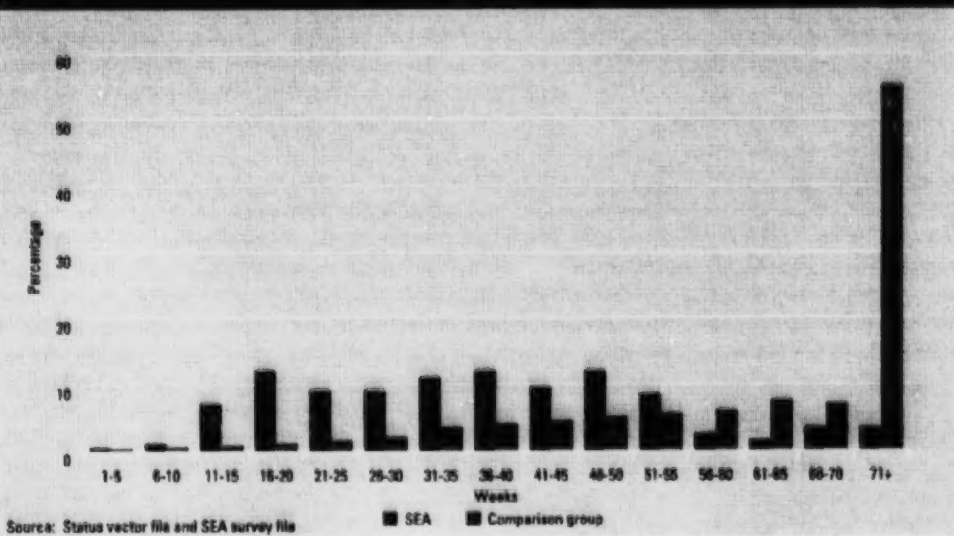
Moreover, differences-in-differences models (i.e., where change in behaviour is modeled against antecedent changes in behaviour) rejected the hypothesis of strong, un-controllable compositional biases. Self-selection correction variables were developed following Heckman's tradition. They were based on pre-program labour force history (administrative data) and, in one case, a self-rated risk-taking attitude variable. These variables were inserted in all relevant econometric models and statistically significantly contributed to handful of them (care was taken to avoid multicollinearity problems arising from the inclusion of the self-selection variable), while they did not exert a qualitative significant effect. Finally, because there was a degree of right-censoring in the measurement of some variables and because this censoring was related to treatment groups (e.g., shorter post-program period for SEA participants), survival analyses were conducted to complement the OLS modelling. In most cases, the results were the same for the two techniques; in a few cases, survival models failed to offer a good enough fit to conclude to differences with OLS results; one model - involving the probability of claiming UI after the program participation - indicated that measurement truncation led to an over estimation of the SEA advantage but the difference was still quite large and still favoured SEA participants.

Timing of the impacts. While the analysis of program impacts and effects has relied extensively on the survey of program participants and a comparison group of non-participants, it should be noted that these results refer to relatively *shorter-term program* outcomes. The Self-Employment Assistance program in its current incarnation is relatively new (established in 1992). Program participants are drawn from a cohort that participated in SEA during fiscal years 1992/93. As a result, for some SEA participants, the post-program period may be as short as three months and conclusions about program outcomes should, therefore, be viewed in this light.

Given the short post-program period and the emphasis on formative evaluation questions in this study, relatively more weight has been assigned to the qualitative research in this evaluation than is typical. These data, while somewhat more impressionistic than the quantitative survey data, provide evidence on questions of program rationale and program delivery. Some impacts and effects, such as displacement, have also been addressed through the qualitative evidence.

Timing of the Interview. While program participants and the comparison group were matched according to timing of the *initiation* of the UI claim, the longer overall claim period for SEA participants translated into substantial differences in the time period between end of UI claim and the time of the interview. Figure 3 presents the distribution of the time period between end of UI claim and date of the interview for participants and the comparison group. The labour market outcomes measured in this study are taken at a relatively shorter time period following the reference UI claim for SEA participants compared to the comparison group. In fact, whereas over 50 per cent of respondents ended the claim more than 70 weeks prior to the interview, SEA participants were more likely to have been interviewed between one and 50 weeks following their UI claim.

Figure 3
Differences in Time Period Between the End of UI Claim and Interview



3. Program Rationale

The primary rationale for self-employment assistance programs for the unemployed is economic and aimed at the level of the individual: to move the participant from economic dependency to economic self-sufficiency.

With respect to rationale issues, the focus of this evaluation is to examine whether the current parameters of the SEA program (duration of assistance, level of financial support, mix of training and operation support services) maximize program success and to estimate the level of potential demand for the program. This chapter, first, reviews the theoretical rationale for self-employment assistance programs for the unemployed. The literature offers several strong reasons for self-employment assistance programs which are expected to benefit both individuals and communities. The issues of the plausibility of the link between program parameters and objectives and potential program demand are also addressed, in turn, below.

Theoretical Rationale for Self-Employment Assistance Programs

Programs to assist the unemployed become self-employed are typically shaped by two types of considerations: economic and social. These considerations are cast in terms of two types of potential beneficiaries: individuals and communities. The literature on self-employment notes that while individuals are the primary targets of self-employment assistance programs, communities are also expected to benefit from this type of intervention.

Individuals. The primary rationale for self-employment assistance programs for the unemployed is economic and aimed at the level of the individual: to move the participant from economic dependency (on unemployment insurance or social assistance) to economic self-sufficiency. Under these programs, participants achieve economic self-sufficiency by creating their own job (Puls, 1988). While detractors of self-employment assistance programs argue that often self-employment offers only subsistence-level earnings (and long hours and poor working conditions), supporters counter that subsistence earnings are nevertheless a significant and positive benefit of the program given the alternative of unemployment and income support or paid employment in a poor job. As well, nonmonetary benefits of self-employment such as personal satisfaction, autonomy and flexibility may offset the potential earnings deficit. Aronson (1991) concludes that "the overall success of self-employment as a way to escape poverty is yet to be known".

An additional perceived strength of self-employment assistance programs over other reemployment or income support strategies is that they help individuals to "help themselves" (Feit, 1991, Self-Employment Development Initiative Canada and the Corporation for Enterprise Development USA 1991). In this way, self-employment assistance is also consistent with current social policy trends in Canada and elsewhere which have moved toward more active programming to encourage labour market self-sufficiency and away from more passive forms of income support which often act as disincentives to re-enter the labour market.

The economic rationale for self-employment assistance programs pertain not only to the financial benefits of self-employment itself. The experience of self-employment, whether it results in the establishment of a successful and viable business or not, is viewed as having benefits which can be transferred to subsequent labour market experiences. These are, for example,

- *Retention of Skills.* The labour market literature often refers to the effects of scarring or negative human capital; when workers are unemployed for long spells (or working in jobs in the secondary labour market) they may acquire negative human capital in the form of poor attitudes and work habits, and erosion of skills. Employment and self-employment benefits workers by maintaining their status within the labour market (Orser, 1994).
- *Improved Marketability.* It is argued that the experience acquired during the period of self-employment will improve the overall skills, marketability and adaptability of the individual as they pursue other opportunities in the labour market (Aronson, 1991).

The social objectives of self-employment assistance programs are often expressed in terms of client screening and selection; the purpose of self-employment assistance is not typically to provide assistance to individuals who are able to establish self-employment without assistance, but rather, to target those individuals who experience barriers to starting self-employment. Self-employment assistance programs sometimes target specific groups; for example, structurally unemployed or displaced workers, and social assistance recipients. For example, in the Massachusetts demonstration project in the United States, claimants likely to exhaust their benefits were the targets of the program. In the United Kingdom, self-employment assistance programs are offered to "redundant" skilled and unskilled workers (Puts, 1988). In other programs, individuals with better educational credentials are assigned a lower priority or excluded from the program altogether (Greece and Portugal) or programs are targeted to those having difficulty locating employment (Norway and Luxembourg) (Scott, 1992). Barriers to self-employment uncovered by other research include: lack of financing, limited business knowledge and experience, lack of education, lack of child care, lack of confidence and financial risk (Feit, 1991). Self-employment programs are viewed as providing remedial assistance to create a "level playing field" for these individuals.

Communities. While re-employment has obvious economic benefits for individual workers, rationales for self-employment assistance programs point to the potential benefits of these programs for communities. The most immediate and obvious benefit of self-employment to the community is the reduction in the amount of individual transfer payments: self-employed individuals (once they have finished their program and continue in self-employment) do not collect unemployment insurance or social assistance benefits and, therefore, the draw on these funds is reduced.

Beyond the reduction in individual transfer payments, the rationale for self-employment also lies in the unique potential for self-employed individuals to contribute to local economic development. While the evidence shows that not all self-employed individuals create jobs, according to Friedman (Self-Employment Development Initiatives Canada and the Corporation for Enterprise Development USA, 1991), government assistance to business in the United States has traditionally ignored microbusinesses as a potential engine of economic development, focusing instead on "larger" small business with high growth potential. Self-employment assistance programs then, are viewed as a potential strategy to develop and diversify local economies. Support services and the funnelling of businesses toward specific sectors are designed to enhance the probability of success. Job creation and local spending strengthen the economic base. As well, there are spin-off effects such as availability of new products, local investment and reduced dependence on a single industry or foreign capital.

Finally, it is argued that self-employment assistance programs formalize economic activity that already exists as informal activity (Self-Employment Development Initiatives Canada and the Corporation for Enterprise Development USA 1991). The movement of underground employment into self-employment has obvious economic advantages for communities in terms of firm-and employee-level federal and provincial income tax and insurance contributions.

The social rationale for self-employment at the level of communities generally focuses on impacts on the perceptions of members of the community. For example, self-employment may have social impacts in terms of improving attitudes toward the poor and raising the profile of entrepreneurship among disadvantaged and other workers as a viable and rewarding career option.

ISSUE 1: What evidence exists to indicate that the components of SEA are likely to contribute to achieving the goals of the program?

Program Logic

Since the late 1970's, dozens of programs aimed at helping economically disadvantaged people to become self-sufficient have appeared in many developed countries. In the mid-1980's, for example, there were over 50 entrepreneurial training and self-employment assistance programs operating in the public and private sectors in the U.S. Most of these were very small programs or pilot projects, but by the late 1980s, a number of American states, as well as the U.S. Department of Labour, were beginning to experiment with larger self-employment schemes as a means of reducing the number of people on welfare. The Washington State Self-Employment and Enterprise Development (SEED) was the most significant of these projects. Internationally, a total of 17 OECD countries had self-employment programs in 1990, including all of the main European countries (Self-Employment Development Initiatives, Canada and The Corporation for Enterprise Development, USA, 1991).

Variations in program delivery and approach provide opportunities to compare the relative success of different models and to hypothesize about what types of program parameters might be related to success. Two aspects of self-employment assistance programs are examined here: income support and training.

Income Support. While all programs provide income support for participants, some programs provide lump sum payments while others provide periodic income support payments to participants. Amounts of payments may be fixed, or variable and tied to previous earnings or number of jobs created. Often a maximum amount of allowable support participants are able to receive over the duration of the program is specified. Duration of income support may also be fixed (52 weeks is typically the longest duration of support) or variable.

The benefits provided to SEA regular UI recipients are quite generous by international standards. Benefits are based on periodic payment and for UI recipients, are tied to previous earnings like a regular UI claim. There is no maximum benefit amount and support is provided to participants for 52 weeks (the maximum duration among other comparable self-employment assistance programs).

There is some evidence to suggest that business survival rates appear to be slightly more positive for the periodic payment model. In France, for example, the "lump sum" model yields a 53 per cent business survival rate after three years. In Britain, where the program is based on periodic payments, the survival rate is between 57 and 63 per cent. Unlike other international programs which utilize a periodic payment structure, the SEA does not offer participants the opportunity to capitalize their benefits. SEA is somewhat less flexible and this may be a barrier to some type of businesses which have relatively higher start-up costs.

Unlike UI recipients, income support to SAR participants is based on a flat rate. The level and duration of benefits was seen by SEA program delivery agents to be a significant barrier to participation for social assistance recipients. Benefits are generally not considered to be high enough for SAR clients to be able to survive. In addition to this, revenues brought in from the business, over a certain amount, are deducted from the participant's social assistance cheque without taking into account expenses. In some instances their social assistance is stopped. These practices provide SARs with little incentive to participate.

ISSUE 2a: What is the potential demand for SEA?

Training. One of the significant differences between SEA and its predecessor SEI, is the incorporation of a mandatory training component. SEA provides training to all participants, however, it is provided at the local level and as a result, there are significant variations in the type and duration of training received. While the international experience with training and self-employment assistance is limited, there is some evidence to suggest that training is a desirable component of these programs.

Self-employment assistance programs in most countries do *not* include a training component *per se*. Information and guidance is often made available to participants who request it. The literature suggests, however, that advice and training have a very significant positive influence on participants' success (Self-Employment Development Initiatives, Canada and the Corporation Enterprise Development, USA, 1991). As a result, a number of countries are making strides to improve their ability to deliver these services. In doing so, administrators have opted to more fully integrate their programs into the support and advisory services that are already available to all new entrepreneurs, as opposed to creating "in-house" training and counselling services. Since then, evidence from the evaluation of the French program has indicated that the review of business plans, increased training and advising can reduce failure rates by 50 per cent (Self-Employment Development Initiatives, Canada and The Corporation for Enterprise Development, USA, 1991).

Demand for the Program

Extent of Demand

The SEA Program represents a relatively small program component of Employment Services and Programs in terms of budget allocation and overall levels of participation. The budget for the program in fiscal year 1993/94 was \$126 million for UI recipients and \$4 million for SAR participants. About 7,000 workers participated in the Self-Employment Assistance program last year (fiscal year 1993/94).

Participation in the SEA program is constrained by the availability of program funds and awareness of the program among the target population. Program participation does not necessarily represent program demand. In fact, interviews with SEA delivery agents suggested that demand for the program generally exceeds available resources. The vast majority of Business Development Centres do not advertise their programs simply because they have more than enough applicants for the funds that are allocated to the program. Consequently, awareness of the program is not widespread, with only 39 per cent of the comparison group being aware of the program.

According to previous studies and our own data, SEA participants currently represent about one per cent of regular UI recipients (during the period studied, 12,349 of 1,275,820 UI recipients participated in the program). The available evidence suggests that SEAs coverage is only a small

proportion of unemployed workers who eventually go on to self-employment and an even smaller fraction of unemployed workers who are *interested* in self-employment. For example:

- Many more UI claimants establish a small business than are served by the SEA program. Data collected in this evaluation show that 10 per cent of UI claimants earn part of their income from self-employment 18 months on average after the end of their UI claim. Fourteen per cent started a business at some time during this period. Wong *et. al.*'s analysis of Labour Market Activity Survey data found that six per cent of UI claimants entered into self-employment.
- SEA participation rates are low compared to the international experience. In Europe, between four and five per cent of unemployed workers pursue self-employment through government funded programs. In self-employment demonstration projects in the United States (Washington and Massachusetts) between four and eight per cent of UI claimants demonstrated interest in self-employment by attending an information session on self-employment and between two and four per cent completed an application to start self-employment.
- Finally, the evaluation data indicate that a significant portion of the program's target group is interested in pursuing self-employment. Between 25 per cent (responded 5, 6 or 7 on a 7-point scale) and 40 per cent (responded 4, 5, 6 or 7 on a 7-point scale) of the comparison group who were surveyed indicated they were interested in starting their own small business at the time they were unemployed. Interest in self-employment was strongest in Quebec, Alberta and British Columbia. It should be noted that respondents reported interest in self-employment is highly speculative and likely represents an overestimate of the number who would take concrete steps toward self-employment or participate in the SEA program.

Taken together, these data suggest that program participation, currently constrained by available funding, does not meet demand. A reasonable estimate of program demand in Canada is likely between two and five per cent of the UI population - 100 to 400 per cent higher than current participation levels.

ISSUE 2b: What drives demand for SEA participation – high levels of unemployment or basic structural changes in the economy?

Motivators

The literature suggests that economic conditions are an important factor in predicting interest and participation in self-employment. Levels of unemployment and basic structural changes in the economy are identified as important "push" and "pull" factors toward self-employment (CLMPC, 1989).

On the one hand, the health and structure of national and regional economies may function to funnel individuals toward self-employment as their options for other kinds of work become more limited. Downsizing in certain sectors of the private sector, together with the lack of job growth in the public sector, suggest that opportunities for paid, full-time employment are becoming more scarce. As a result, workers may explore other methods of reemployment such as self-employment.

On the other hand, economic restructuring may also create the circumstances where self-employment becomes a more viable alternative to paid employment. Structural economic

changes, especially the shift from a good-producing economy to a service-based economy, have been identified as significant "pull" factors influencing the self-employment decision. Unlike primary and secondary industries, the service sector provides many more opportunities for full- and part-time self-employment or microbusinesses which require little capitalization. Within-sector developments, such as the increasing trend toward customization and specialization in both the manufacturing and service sectors, have also created positive conditions for self-employment. The flexibility of small businesses to respond to rapid changes in consumer demand is viewed as a strong advantage, thus increasing the attractiveness of these businesses. Finally, the growth of non-standard employment, such as part-time or contract-based employment, may also be driving interest in self-employment and demand for programs like SEA. While the current study does not shed any direct light on this issue, it is plausible that in some cases, employees whose job has ended may become self-employed and return to their former employer on a contracted basis.

Technological change may also be viewed as a "pull" factor contributing to the growth of self-employment. New information technology has created a large industry with many new products and services, often with opportunities for self-employment. New technology has also changed the nature of work, increasing the feasibility of home-based businesses, allowing small business to access world markets and decreasing the importance of economics of scale (CLMPC, 1989).

Aronson (1991) argues that attitudinal changes regarding self-employment may also partially explain its recent growth. Whereas self-employment has been viewed in a negative light in the past (as risky, a last resort in the face of other barriers), self-employment is now seen in a more positive light. This new image of self-employment emphasizes flexibility, autonomy and the absence of institutional constraints.

The focus groups and survey research confirmed a wide variety of reasons for pursuing self-employment. Program participants and individuals in the comparison group who had pursued self-employment on their own expressed similar types of motivations. In the focus group discussions, almost all SEA participants reported that self-employment was something that they had given serious thought to before becoming unemployed. For the majority of SEA participants, self-employment was more career advancement or "personal advancement" than a means of survival. Many started businesses in sectors in which they had already worked. These participants indicated that they could have found work similar to what they had done in the past, albeit with some difficulty and probably at lower pay, and with little employment security. Thus, for these people, being out of work in combination with the availability of the SEA program created an "opportunity" which they found extremely attractive.

For a minority of SEA participants self-employment was the most viable option for survival. Typically, these participants discovered SEA later in their UI eligibility period, having come to the jarring realization that they might not be able to find sustaining employment before their benefits expired.

These data are confirmed by the survey data. According to participants, by far the most important "pull factor" for pursuing self-employment is "to be your own boss" (Table 1). Over 80 per cent rated this an important reason for starting their own business. The second most important reason - no other job available - suggests the importance of "push" factors. Other reasons in order of importance are: to have more flexible hours; to be able to work at home; to earn more than in a paid job; to avoid barriers such as discrimination in the workplace; and to avoid the costs of employment.

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Table 1 Reasons for Participating in SEA According to Program Participants

Reasons	% Rated Important (5, 6 and 7 on a 7-Point Scale)
To be your own boss	81
No other jobs available	66
To have more flexible hours	52
To be able to work at home	47
To earn more than in a paid job	46
To avoid barriers such as discrimination in the workplace	19
To avoid the costs of employment	15

Source: SEA Evaluation Survey of Participants.

Barriers

Images of self-employment were examined to understand factors which inhibit demand for the program. The perceived images and barriers to self-employment were similar for SEA participants and those in the comparison group, with the latter, not surprisingly, having a somewhat more negative image of self-employment. *Risk* and *uncertainty* were common deterrents to pursuing self-employment which were raised in the discussions. Others barriers which were raised include: securing financing or start-up capital; long hours and burdensome responsibility; negative effects on family and long-term financial security; lack of knowledge and ability; and lack of confidence.

Among those surveyed in the comparison group, lack of awareness of the program was a significant initial barrier to program participation. About two thirds (61 per cent) of the comparison group had never heard of the SEA program. Of those who were aware of SEA, the most important reason for not participating in the program related to their preference for paid employment. One in five reported they had found another job and chose not to pursue the program. Another 20 per cent did not participate in the program because they were simply not interested in self-employment.

Table 2 Reasons for Not Participating in SEA According to Non-Participants

Reasons	Percent of Respondents
Lack of awareness of program	61
Found a job/offered a job	8
Not interested in self-employment	8
Too risky	8
Did not meet eligibility requirements	4
Too much red tape/administrative burden	3
Lack of information	3
Applied but rejected	2
Other	4

Source: SEA Evaluation Survey of Non-Participants

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Reasons for Participating in SEA According to Program Participants

Reasons	% Rated Important (5, 6 and 7 on a 7-Point Scale)
To be your own boss	81
No other jobs available	58
To have more flexible hours	52
To be able to work at home	47
To earn more than in a paid job	45
To avoid barriers such as discrimination in the workplace	19
To avoid the costs of employment	15

Source: SEA Evaluation Survey of Participants.

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Table 2
Reasons for Non-Participating in SEA According to Non-Participants

Reasons	Percent of Respondents
Lack of awareness of program	61
Found a job/offered a job	8
Not interested in self-employment	8
Too risky	6
Did not meet eligibility requirements	4
Too much red tape/administrative burden	3
Lack of information	3
Applied but rejected	2
Other	4

Source: SEA Evaluation Survey of Non-Participants

4. Profile of Users and Program Activities

Lifecycle has been found to be an important variable in predicting interest in self-employment.

The literature suggests that there are a wide variety of socio-demographic and attitudinal predictors of interest and participation in self-employment (Orser, 1994; Balkin, 1991; Wong, *et al.*, 1993). The profile of SEA participants presented here provides additional evidence on the types of characteristics that are associated with self-employment.⁵ The profile of SEA participants is compared with a comparison group⁶ and, where appropriate and available, UI recipients in general and the overall workforce.⁷ This chapter also provides a descriptive profile of program activities and of businesses started by SEA participants.

Socio-demographic Profile

In previous studies of self-employment, lifecycle has been found to be an important variable in predicting interest in self-employment. The greater access to resources and solid work experience of older workers, for example, increases their likelihood of pursuing self-employment. This study shows that, indeed, SEA participants tend to be more "established" than those in the comparison group. They are slightly older than workers in the comparison group (40 years on average compared to 38 years for the comparison group) and SEA participants are more likely to be married (78 per cent compared to 67 per cent in the comparison group (Table 3). SEA participants are also more likely to own their own home. They have greater assets than the comparison group and are less likely to have had significant debts before the program.

⁵ Unless stated otherwise, the profile of participants refers to regular UI recipients who participated in the program. The bulk of program participants fall into this category. Only a fraction of program participants - about six per cent - are social assistance recipients.

⁶ All comparisons between SEA participants and the Comparison Group discussed in this chapter are statistically significant unless otherwise stated.

⁷ Comparisons are based on data collected on the regular UI population during a panel based study conducted in 1993-4 and on a study of the general labour market conducted in 1991. See Ekos Research Associates Inc., *A Panel Based Study of Out-of-Employment Individuals*, Final Report Submitted to Human Resources Development Canada, 1994 and Ekos Research Associates Inc., *Evaluation of the Skill Investment Program*, Final Report submitted to Human Resources Development Canada, 1991. Labour Force survey statistics are also used where available.

Table 3
Socio-demographic Profile

	SEA Participants	SEA Comparison Group	UI ¹ Recipients	Overall Workforce
Average age (years)	40	38	37	38²
15-24	1.7	6.9	17.1	19 ²
25-44	79.7	88.4	88.9	88
45-64	27.4	25.2	22.2	28
65+	9.2	0.5	0.8	1
Sex				
Male	85	63	54	89 ²
Female	35	37	48	45
Language				
English	74	72	n/a	89 ²
French	20	20		25
Other	4	5		11
Marital Status				
Married	78	87	57	88
Single	12	23	33	27
Separated/divorced /widowed	9	10	9	8
Number of people in household	3	3	3	3 ²
Average number of dependents	1	1	1	n/a
Number of dependents under six	0.3	0.4	1	n/a
Tenure				
Rent	19	33	42	38 ²
Own	78	80	55	57
Other	2	5	n/a	
Spouses employment status				
Self-employed	17	9		79 ²
Employed	82	61	85	
Unemployed	22	30		21
Out of the labour force			33	
Education				
Primary school	2	6	5	7 ²
Some high school	18	38	23	18
High school graduate	30	30	34	23
Some post-secondary	21	14	13	10
College graduate	14	12	9	27
University graduate	14	7	8	15

(table continued...)



Table 3:
Socio-demographic Profile

	SEA Participants	SEA Comparison Group	UI ¹ Recipients	Overall Workforce
Average age (years)	40	38	37	38 ³
15-24	1.7	8.9	17.1	18 ²
25-44	70.7	89.4	59.9	55
45-64	27.4	23.2	22.2	26
65+	0.2	0.5	0.8	1
Sex				
Male	65	63	54	55 ²
Female	35	37	46	45
Language				
English	74	72		65 ³
French	20	20	n/a	25
Other	4	5		11
Marital Status				
Married	78	67	57	65
Single	12	23	33	27
Separated/divorced /widowed	9	10	9	8
Number of people in household	3	3	3	3 ³
Average number of dependents	1	1	1	n/a
Number of dependents under six	0.3	0.4	1	n/a
Tenure				
Rent	19	33	42	38 ³
Own	78	60	55	57
Other	2	6	n/a	
Spouses employment status				
Self-employed	17	9		
Employed	62	61	65	79 ³
Unemployed	22	30		
Out of the labour force			33	21
Education				
Primary school	2	6	5	7 ²
Some high school	18	30	23	18
High school graduate	30	30	34	23
Some post- secondary	21	14	13	10
College graduate	14	12	9	27
University graduate	14	7	8	15

(table continued...)



Table 3
Socio-demographic Profile (con't)

	SEA Participants	SEA Comparison Group	UI ¹ Recipients	Overall Workforce
Attitude toward risk⁴				
Risk avoider	18	24	n/a	n/a
Average	30	36		
Risk taker	53	37		
Parents self-employed				
Yes	41	37	n/a	n/a
No	59	63		
Country of origin				
Canada	91	89	n/a	n/a
Another country	9	11		
Employment equity group status				
Visible minority	4	6	18	n/a
Disabled	8	12	7	
Aboriginal person	2	4	n/a	
Collected welfare in the last 12				
Yes	3	8		
No	97	92		

Sources:

- 1 Ekos Research Associates Inc., *Panel Based Study of Out of Employment Individuals*, Final Report submitted to Program Evaluation Branch, Human Resources Development Canada, 1994.
- 2 Statistics Canada, *Labour Force Annual Averages*, 1992.
- 3 Ekos Research Associates Inc., *Evaluation of the Skill Investment Program*, Final Report submitted to Program Evaluation Branch, Human Resources Development, 1991.
- 4 "Risk avoider" responded one, two or three on a seven-point scale where one is extreme risk avoider, seven is extreme risk taker and the midpoint four is average. "Risk taker" responded five, six or seven on this scale and "average" responded four on this scale.

In addition to their relatively greater stability, SEA participants are more likely to have made substantial investments in education and training compared to those in the comparison group. Only one in five program participants did *not* have a high school diploma compared to one in three of the comparison group. Almost half of SEA participants had at least some post-secondary education compared to about one-third of workers in the comparison group. SEA participants may also be distinguished from the comparison group on attitudinal pre-disposition to self-employment. The literature suggests that low risk aversion, desire for greater autonomy and flexibility, and high achievement orientation are some of the variables associated with self-employment. This research examined the role of attitudes toward risk-taking. The results confirm other evidence: SEA participants were more likely to characterize themselves as "risk-takers" than those in the comparison group (53 per cent and 37 per cent respectively). Prior self-employment experience does not appear to be associated with participation in the program. SEA participants were no more likely than the comparison group to have been self-employed in their job prior to receiving UI and both groups were equally likely to have had a parent who was self-employed. SEA participants were, however, more likely to have a spouse who was self-employed: 17 per cent of participants' spouses were self-employed compared to nine per cent of spouses of the comparison group.

Table 3:
Socio-demographic Profile (cont.)

	SEA Participants	SEA Comparison Group	UI ¹ Recipients	Overall Workforce
Attitude toward risk ⁴				
Risk avoider	18	34	n/a	n/a
Average	30	36		
Risk taker	53	27		
Parents self-employed				
Yes	41	37	n/a	n/a
No	59	63		
Country of origin				
Canada	91	89	n/a	n/a
Another country	9	11		
Employment equity group status				
Visible minority	4	8	16	n/a
Disabled	9	12	7	
Aboriginal person	2	4	n/a	
Collected welfare in the last yr				
Yes	3	9		
No	97	92		

Sources:

- 1 Ekos Research Associates Inc., *Panel Based Study of Out of Employment Individuals, Final Report submitted to Program Evaluation Branch, Human Resources Development Canada, 1994.*
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A policy of targeting employment equity groups for participation in the SEA program does not appear to have been successful in increasing the participation rates of these groups.

Previous studies of self-employment have shown that women are less likely to pursue self-employment than men and that other groups, often in the marginal or disadvantaged portions of the labour market, are also unlikely to establish a business. A study of the SEI program between 1987 and 1991 also found that participants were more likely to be male than female (though the program has attracted proportionately more females than programs in other countries) (Wong, *et al.*, 1993).

It should be noted that while females do not appear to be underrepresented among SEA participants (35 percent) compared to the study comparison group (37 percent), the proportion of female program participants is low when compared to UI recipients in general and the workforce as a whole. In these populations, women represent about 45 per cent of workers. Female representation among the participant group is, however, comparable to the proportion of self-employed Canadians in the labour force who are female: approximately 35 per cent.

A policy of targeting employment equity groups for participation in the SEA program does not appear to have been successful in increasing the participation rates of these groups. The proportion of visible minority, disabled and aboriginal participants is low compared to their representation among non-participants.

A comparison of SEA participants with UI recipients in general and the overall workforce yields a similar profile. SEA participants are more likely to be married than these other populations and are more likely to own their own home. While SEA participants have higher levels of education than UI recipients (49 per cent have post-secondary education compared to only 30 per cent of UI recipients), participants have similar educational achievements to the workforce overall (52 per cent of the overall workforce have post-secondary education experiences).

Employment Profile

SEA participants worked at more highly skilled jobs prior to participating in the program compared to the comparison group. Program participants estimated that it would take the average new person 24 months to become fully trained and qualified at their job compared to 14 months reported by those in the comparison group (Table 4). SEA participants were also more likely than the comparison group to have had managerial responsibilities at their previous job (63 per cent and 52 per cent respectively). Greater skill requirements and responsibilities translated into a slight wage advantage for participants prior to program participation: \$562 compared to \$503 for the comparison group. Both SEA participants and the comparison group worked 42 hours per week on average. Compared to UI recipients in general and the overall workforce, SEA participants work slightly more hours (about four hours more per week) and also earn somewhat more (between two and eight per cent more per week).

Table 4
Employment Profile: Previous Job

	SEA Participants	SEA Comparison Group	UI ¹ Recipients	Overall workforce
Type of job				
Year round	74	59	n/a	n/a
Temporary or casual	10	12		
Seasonal	16	29		
Self-employed	4	8	n/a	n/a
Hours worked per week	42	42	37 38	38
Average weekly earnings	\$562	\$500	n/a	\$501 ² \$516 ³ trainees \$532 non-trainees
Average months to be trained	24	18	n/a	27 ³
Overall job satisfaction				
Very satisfied	72	73	44	n/a
Somewhat satisfied	20	11	13	35
Very dissatisfied	16	15	14	
Satisfaction with opportunities for advancement				
Very satisfied	36	40	n/a	n/a
Somewhat satisfied	20	20		
Very dissatisfied	40	37		
Managerial responsibilities	63	52	n/a	n/a

Notes:

- 1 Ekos Research Associates Inc., *Panel Based Study of Out of Employment Individuals, Final Report* submitted to Program Evaluation Branch, Human Resources Development Canada, 1994.
- 2 Statistics Canada, *Labour Force Annual Averages, 1992*.
- 3 Ekos Research Associates Inc., *Evaluation of the Skill Investment Program, Final Report* submitted to Program Evaluation Branch, Human Resources Development, 1991.

SEA participants were more likely than the comparison group to have had a stable prior work history. About three-quarters of SEA participants were working at a year round job prior to participating in the program compared to 60 per cent of the comparison group. Members of the comparison group were also more likely than participants to be working at a seasonal job. SEA participants were employed for a longer period prior to collecting UI. SEA participants were unemployed for 15 weeks in the previous 24 months compared to 22 weeks for the comparison group. SEA participants also had fewer job separations, working for fewer employers during that time than the comparison group.

A shorter period of unemployment resulted in SEA participants relying less on social assistance. Program participants (excluding SAR SEA participants) were less likely than the comparison group to have collected social assistance during the last 24 months and were also less likely to have received unemployment insurance benefits during that time.

SAR participants and participants from the Atlantic region had a somewhat less stable work history, being employed for fewer weeks in the 24 months prior to the program than other

Table 4
Employment Profile: Pre-Program Job

	SEA Participants	SEA Comparison Group	UI ¹ Recipients	Overall workforce
Type of job				
Year round	74	59	n/a	n/a
Temporary or casual	19	13		
Seasonal	18	28		
Self-employed	4	8	n/a	n/a
Hours worked per week	42	42	37 38	38
Average weekly earnings	\$ 582	\$ 582	n/a	\$582 \$519 ² \$520 \$520
Average months to be trained	24	18	n/a	27 ³
Overall job satisfaction				
Very satisfied	72	73	44	n/a
Somewhat satisfied	26	11	13	38
Very dissatisfied	18	15	14	
Satisfaction with opportunities for advancement				
Very satisfied	38	40	n/a	n/a
Somewhat satisfied	30	28		
Very dissatisfied	40	37		
Managerial responsibilities	83	52	n/a	n/a

Notes:

- 1 Ekos Research Associates Inc., Panel Based Study of Out of Employment Individuals, Final Report submitted to Program Evaluation Branch, Human Resources Development Canada, 1994.
- 2 Statistics Canada, Labour Force Annual Averages, 1992.
- 3 Ekos Research Associates Inc., Evaluation of the Skill Investment Program, Final Report submitted to Program Evaluation Branch, Human Resources Development, 1991.

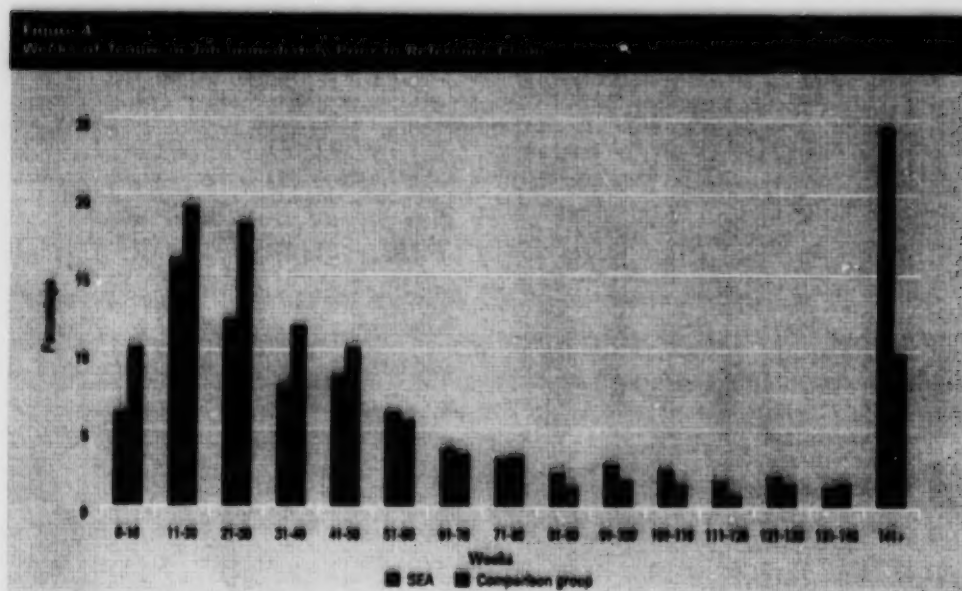
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SAR participants and participants from the Atlantic region had a somewhat less stable work history, being employed for fewer weeks in the 24 months prior to the program than other

participants. These two groups also earned relatively less during the pre-program period and participants from the Atlantic region were less likely to have been working in a year-round prior to participating in the program.

SEA participants had a longer tenure at their job immediately prior to participating in the program compared to the comparison group (Figure 4).⁸ Average number of weeks of tenure at this job for program participants was 121 weeks with almost one in four having been at their job for over 141 weeks. Members of the comparison group stayed at their prior job for 70 weeks on average. Reasons for job separation prior to collecting UI were similar for SEA participants and the comparison group (Table 5). For both groups, the most important reason for separation from their job immediately prior to the reference claim was shortage of work (52 per cent of SEA participants and 54 per cent of those in the comparison group).



⁸ Note that considerable care must be exercised in interpreting these data. The proportion of missing data is significant. As well, the administrative data used here refers to the job immediately preceding the reference claim and is therefore not necessarily comparable to survey data information which asked for most important job in the two years prior to the reference claim.

Table 5
Reason for Separation (Percent)

	SEA	Comparison
Shortage of work	52.3	54.3
Return to school	0.2	0.7
Injury or illness	1.8	2.4
Voluntary departure	11.6	7.2
Pregnancy	1.0	2.1
Retirement	0.2	0.1
Worksharing	0.9	1.4
Apprenticeship	0.2	0.4
Other	18.2	14.7
Dismissal	3.7	2.4

Historical employment and income information available from administrative files confirm SEA participants' advantage in these areas over the comparison group (Table 6). Program participants' employment earnings both two years prior to the program and one year prior are significantly higher than the comparison group (\$19,405 compared to \$14,156 and \$20,504 compared to \$14,780 respectively). Higher employment earnings are reflected in significantly higher total incomes for participants at both time periods. SEA participants experienced less joblessness than the comparison group, having significantly fewer weeks on UI (about three weeks less in both the two years prior to the program and the year prior to the program). Participants also received fewer UI benefits than the comparison group (\$624 less in the two years prior to the program and \$654 less in the year prior to the program).

Table 6
Raw Earnings, Income and UI Usage

TWO YEARS PRIOR	SEA Participants (n)	Comparison Group (n)	P	ONE YEAR PRIOR	SEA Participants (n)	Comparison Group	P
Employment earnings 2 years prior reference year	\$19,405 (1,462)	\$14,156 (2,892)	0.000	Employment earnings 1 year prior reference year	\$20,504 (1,462)	\$14,780 (2,892)	0.000
Total incomes 2 years prior reference year	\$24,055 (1,362)	\$19,089 (2,402)	0.000	Total incomes 1 years prior reference year	\$25,448 (1,388)	\$20,100 (2,447)	0.000
Number of weeks received UI 13-24 months before reference week	8.1 (1,462)	10.8 (2,892)	0.000	Number of weeks received UI 1-12 months before reference week	7.8 (1,462)	10.9 (2,892)	0.000
Amount of UI received 13-24 months before reference week	\$2,088 (1,462)	\$2,690 (2,892)	0.000	Amount of UI received 1-12 months before reference week	\$2,077 (1,462)	\$2,731 (2,892)	0.000
Gross business income(T1) 2 years prior reference year	\$3,111 (1,362)	\$1,587 (2,402)	0.009	Gross business income(T1) 1 years prior reference year	\$2,254 (1,388)	\$1,825 (2,447)	0.213
Percentage of respondents have Gross business income(T1) 2 years prior reference year	9.9 (1362)	7.1 (2402)	0.003	Percentage of respondents have Gross business income(T1) 1 years prior reference year	9.8 (1388)	7.3 (2447)	0.005

Since the T1 file only covers till year 1992, post T1 information are missing for most of the SEA participants.

Table 5
Reason for Separation (Percent)

	SEA	Comparison
Shortage of work	52.3	54.3
Return to school	6.3	6.7
Injury or illness	1.8	2.4
Voluntary departure	11.8	7.2
Pregnancy	1.8	2.1
Retirement	0.2	0.1
Worksharing	0.9	1.4
Apprenticeship	0.2	0.4
Other	10.2	14.7
Dismissal	3.7	2.4

Historical employment and income information available from administrative files confirm SEA participants' advantage in these areas over the comparison group (Table 6). Program participants' employment earnings both two years prior to the program and one year prior are significantly higher than the comparison group (\$19,405 compared to \$14,156 and \$20,504 compared to \$14,780 respectively). Higher employment earnings are reflected in significantly higher total incomes for participants at both time periods. SEA participants experienced less joblessness than the comparison group, having significantly fewer weeks on UI (about three weeks less in both the two years prior to the program and the year prior to the program). Participants also received fewer UI benefits than the comparison group (\$624 less in the two years prior to the program and \$654 less in the year prior to the program).

Table 6
Mean Employment, Income, and UI Data

TWO YEARS PRIOR	SEA Participants (n)	Comparison Group (n)	P	ONE YEAR PRIOR	SEA Participants (n)	Comparison Group (n)	P
Employment earnings 2 years prior reference year	\$19,405 (1,402)	\$14,156 (2,000)	0.000	Employment earnings 1 year prior reference year	\$20,504 (1,402)	\$14,780 (2,000)	0.000
Total incomes 2 years prior reference year	\$24,000 (1,362)	\$18,800 (2,000)	0.000	Total incomes 1 years prior reference year	\$25,040 (1,362)	\$20,700 (2,000)	0.000
Number of weeks received UI 13-24 months before reference week	6.1 (1,402)	10.9 (2,000)	0.000	Number of weeks received UI 1-12 months before reference week	7.3 (1,402)	10.9 (2,000)	0.000
Amount of UI received 13-24 months before reference week	\$2,000 (1,402)	\$2,000 (2,000)	0.000	Amount of UI received 1-12 months before reference week	\$2,077 (1,402)	\$2,751 (2,000)	0.000
Gross business income(T1) 2 years prior reference year	\$6,111 (1,362)	\$1,200 (2,000)	0.000	Gross business income(T1) 1 year prior reference year	\$6,204 (1,362)	\$1,200 (2,000)	0.010
Percentage of respondents have Gross business income(T1) 2 years prior reference year	9.9 (1,362)	2.1 (2,000)	0.000	Percentage of respondents have Gross business income(T1) 1 year prior reference year	9.3 (1,362)	2.3 (2,000)	0.000

Since the T1 file only covers till year 1992, post T1 information are missing for most of the SEA participants.

SEA participants were significantly more likely to have reported business income in both the two years prior to participation in the program (9.9 per cent compared to 7.1 per cent) and in the year prior to participation than the comparison group (9.8 per cent compared to 7.2 per cent). Program participants' gross business income was significantly higher than the comparison group in the two years prior to the program (\$3,111 compared to \$1,587), but was about equivalent in the year prior to program participation.

In sum, the majority of SEA program participants do not resemble other UI recipients or other workers in many ways. They have a stronger attachment to the labour force than other UI recipients and are less likely to have a history of dependence on UI or social assistance. SEA participants have stronger skills and more education than UI recipients in general. They also have access to greater financial resources. While SEA participants do not have any more personal experience in self-employment than others, they tend to have a lower aversion to taking risks.

Demand for the program currently exceeds supply and, therefore, formal outreach through advertising and promotion is not necessary to recruit participants.

Program Take-Up and Satisfaction

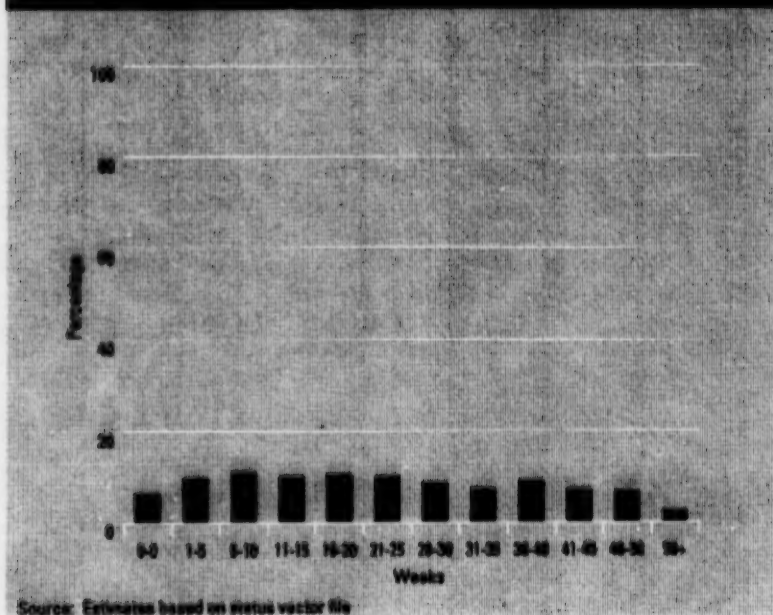
Awareness

As mentioned above, SEA participants represent about one per cent of regular UI recipients. Demand for the program currently exceeds supply and, therefore, formal outreach through advertising and promotion is not necessary to recruit participants. The experience of SEA participants confirms that a substantial proportion of participants become aware of SEA through informal channels. Forty-one per cent of participants first heard of the program through word of mouth (e.g., family or friends). About one-quarter of participants were referred to the program by a CEC counsellor. Sixteen per cent became aware of the program through media advertising or brochures and 15 per cent were referred to SEA through another government program (Appendix A, Table A.1).⁹

There was no evidence to suggest that SEA participants utilized the program simply to extend their UI benefits (i.e., waiting until near the end of their claim to apply to the program). In fact, SEA start was distributed quite evenly across participants' UI claim (Figure 5). Thirty-eight per cent of respondents started the SEA program within 16 weeks of starting their UI claim. An additional 30 per cent started their SEA program within 30 weeks of starting their UI claim. Nine per cent started the program near the end of their claim, collecting 46 or more weeks of benefits prior to participating in the program.

⁹ Tables designated "A" are included in Appendix A.

Figure 5
Number of Weeks into Referenced Claim Before SEA Start



About 39 per cent of comparison group individuals had heard of the SEA program. Of those who had heard of the program, half considered using the program. The focus group discussions revealed a relatively low level of knowledge about the SEA program among those in the comparison group and these individuals were often surprised and dismayed to hear that such a program was available (some had inquired specifically about support for self-employment while they were unemployed and had been told that no such program was available). This low level of awareness could be the result of a variety of factors: low priority for SEA among local CECs; lack of program funds for additional candidates; ineligibility of the individual or limited outreach and promotion.

About one-half of participants in the discussion groups indicated that they would have enquired about the program at the time that they were weighing their options. The other half were not interested because of one or more of the four following reasons: lack of capital, low benefits, underdeveloped business idea and suspicion of government programs.

Activities and Satisfaction

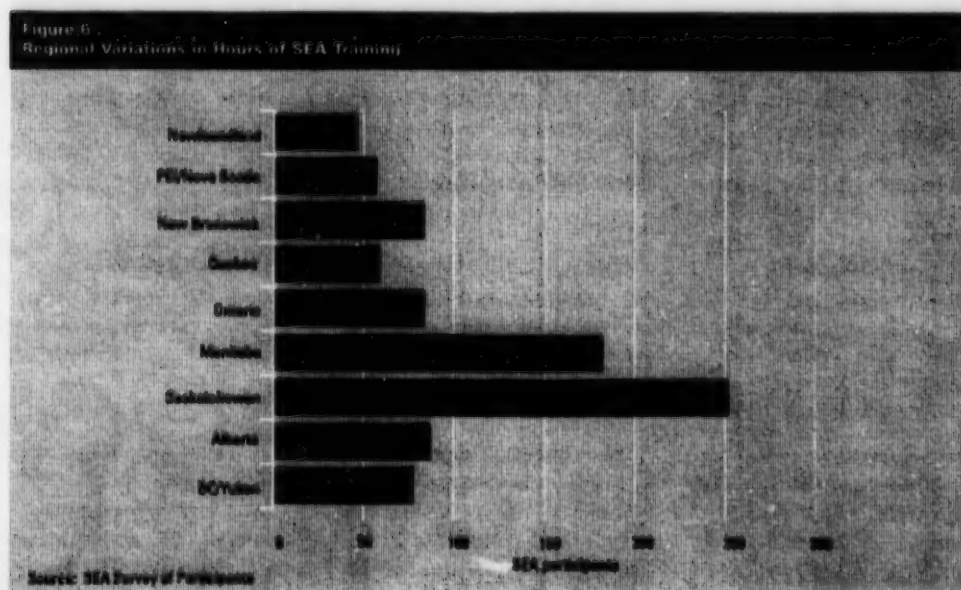
While program guidelines provide broad parameters for the delivery of the program, SEA is delivered at the local level resulting in variations in activities. For the vast majority of participants, participation in SEA begins with an initial orientation and self-assessment process. A formal application, and often a business plan, must be submitted to be considered for participation into the program. Once accepted, participants are provided training, income support and ongoing technical assistance and support to start their own business.

Participants expressed few regrets about their decision to pursue self-employment and were also positive about their experience. The vast majority of participants (80 per cent) disagreed with the statement "If I had to do it all over again, I would not start my own business". In terms of their overall experience in the SEA program, 89 per cent of participants claimed they were satisfied

(Table A.2). Participants were most satisfied with the information they received about the program, the financial assistance, the application process and the training sessions. Weaker support was expressed for the orientation session, and the support and assistance in operating their business. SAR participants were significantly less satisfied than other participants with the financial assistance provided by the program; objectively, the financial support available to SAR participants is less than for regular UI recipients. Participants in the Atlantic and in British Columbia were somewhat more satisfied than other participants and those in Alberta and Quebec were somewhat less satisfied.

One of the puzzling study findings is the rate of participation in SEA training. The incorporation of a mandatory training component was a significant program change that differentiated SEA from the previous SEI program. The program guidelines state that training be offered to all participants and that it be tailored to the needs of individual participants. However, one-third of program participants reported that they had not received any training through the Self-Employment Assistance Program (44 per cent of SAR clients claimed they had never received training) (Table A.3). This may be an indication of a significant program delivery issue. It is also conceivable, however, that the question was misunderstood by respondents (e.g., seminars attended through the program or one-on-one advice may not have been recognized by participants as "training").

There were also significant regional variations in the duration of training available to participants (Figure 6). The training that was provided to participants ranged in average duration from a low of 45 hours in Newfoundland to 250 hours in Saskatchewan and 180 hours in Manitoba. The average overall duration of training was 89 hours. Types of material most often provided to participants included: bookkeeping/accounting, marketing, management and financing/financial planning.



Other Activities

In addition to receiving services through the SEA program, a substantial minority of participants also sought training and advice outside the program. Thirty-two per cent of SEA participants

reported taking a training or employment program since starting their UI claim (*not including the SEA training*). Of these, 78 per cent stated that their training was business-related to help in starting their own business. Participants in Manitoba, Ontario and British Columbia were most likely to have taken training outside the program. Fourteen per cent of participants also reported receiving counselling, such as job search or career counselling, since the start of their unemployment insurance claim. SAR clients were more likely than regular UI participants to have received some type of counselling.

Two-thirds of SEA participants consulted with other agencies, professionals or informal networks outside the program, when they were starting their business. Participants in Ontario and Saskatchewan were somewhat more likely to have consulted others outside the program. Participants most often sought advice and assistance from: family and friends; a business network/peer support group; an accountant; or a mentor or business colleague.

Profile of Self-Employment

SEA participants were significantly more likely than the comparison group who chose self-employment to have received financing to start their own business. About half of SEA participants received a loan to start their own business compared to less than one-third of non-participants. The value of SEA participants' loan was, on average, \$10,703, slightly higher (though not significantly higher) than the \$9,085 which was borrowed by non-participants (Table 7). Loans to SAR clients were highest at \$12,951.

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Table 7
Profile of Self-Employment Businesses

	SEA Participants	SEA Comparison Group	Significance
Financing			
Received loan	48%	39%	0.0000
Average amount of loan	\$18,703	\$8,000	0.0100
Major source of loan	Bank - 57%	Bank - 57%	0.0000
Average amount of personal equity investment	\$16,814	\$18,443	0.4100
Average amount of cash equity investment	\$8,713	\$12,374	0.0100
Location			
Home-based	58%	60%	0.0000
Rented space	33%	18%	
Other	7%	19%	
Worked in similar business prior	70%	63%	0.0070
Operated with co-owners	23%	34%	0.0000
Date of business start			
Don't know/No response	3%	3%	0.0000
Before 1992	6%	21%	
Jan-June 1992	12%	18%	
July-Dec 1992	28%	8%	
Jan-June 1993	31%	13%	
July-Dec 1993	4%	18%	
1994	1%	34%	
Operation			
Full-year operation	57%	62%	0.0000
Seasonal operation	13%	37%	
Average Number of months business	11 months	10 months	0.0000

Banks were most likely to be the source of business financing for both SEA and comparison group businesses.

Banks were most likely to be the source of business financing for both SEA and comparison group businesses. Just over half of respondents in both groups named banks as their major funder. Participants in Newfoundland were less likely to have received bank financing.

SEA participants invested somewhat less of their personal resources in their business compared to the comparison group. Participants' personal equity investment in their business was, on average, \$16,814 compared to \$18,443 invested by those in the comparison group, though again this was not statistically significant. Both participant and comparison groups' median investment was \$10,000. SAR participants had lower levels of personal equity investment in their business compared to other participants.

Table 7
Profile of Self-Employment Business

	SEA Participants	SEA Comparison Group	Significance
Financing			
Received loan	49%	29%	0.0000
Average amount of loan	\$10,703	\$9,085	0.0100
Major source of loan	Bank - 53%	Bank - 57%	0.0000
Average amount of personal equity investment	\$16,814	\$18,443	0.0100
Average amount of cash equity investment	\$9,713	\$12,374	0.0100
Location			
Home-based	58%	89%	0.0000
Rented space	33%	16%	
Other	7%	15%	
Worked in similar business prior	70%	83%	0.0070
Operated with co-owners	23%	34%	0.0000
Date of business start			
Don't know/No response	3%	3%	0.0000
Before 1992	9%	21%	
Jan-June 1992	12%	19%	
July-Dec 1992	39%	8%	
Jan-June 1993	31%	13%	
July-Dec 1993	4%	13%	
1994	1%	24%	
Operation			
Full-year operation	87%	63%	0.0000
Seasonal operation	13%	37%	
Average Number of months business	11 months	10 months	0.0000

Banks were most likely to be the source of business financing for both SEA and comparison group businesses.

Banks were most likely to be the source of business financing for both SEA and comparison group businesses. Just over half of respondents in both groups named banks as their major funder. Participants in Newfoundland were less likely to have received bank financing.

SEA participants invested somewhat less of their personal resources in their business compared to the comparison group. Participants' personal equity investment in their business was, on average, \$16,814 compared to \$18,443 invested by those in the comparison group, though again this was not statistically significant. Both participant and comparison groups' median investment was \$10,000. SAR participants had lower levels of personal equity investment in their business compared to other participants.

The participant group also had a slightly lower proportionate personal cash investment than the comparison group. Approximately 58 per cent (\$9,713) of participants personal equity investment was a cash investment compared to 67 per cent (\$12,374) for the comparison group. Again, the median cash investment value was equivalent for participants and the comparison group at \$5,000.

Both SEA-sponsored and comparison group businesses are concentrated in the service (18 per cent) and retail (14 per cent) sectors (Table A.6). Comparison group businesses were also often established in the construction sector. Both were also very likely to have experience in a field similar to their business. Seventy per cent of participants and 63 per cent of the comparison group performed work that was similar to their self-employment business prior to participating in the program.

The majority of SEA-sponsored and comparison group businesses are home-based. However, SEA participants are more likely than the comparisons to operate their business from rented premises. While businesses in Newfoundland were less likely to be home-based, businesses in British Columbia were over represented in this category. SEA-sponsored businesses operate less often as partnerships compared to comparison group businesses. SEA participants are more likely than the comparison group to have established year-round businesses: 87 per cent of SEA-sponsored businesses are year-round compared to 63 per cent of comparison group businesses.

Table 8 provides a financial snapshot of SEA-sponsored and comparison group businesses. Overall, businesses started by participants and the comparison group are comparable. SEA-sponsored businesses are slightly (though not significantly) smaller in terms of average assets and gross sales compared to comparison group businesses and are also somewhat less lucrative for owners. Median values for the assets and gross sales indicators are lower than the means for both SEA-sponsored and comparison group's businesses. Moreover, median values are nearly equivalent for the two groups, and often higher for the SEA group, suggesting that there are more *highly* successful businesses among the comparison group, raising the overall mean values for this group. Figures 7 and 8 show the distribution of monthly sales and assets among participating and comparison group businesses. These data confirm that there is a higher proportion of comparison group businesses at both extremes: in the very small (low assets, low sales) business category and in the very large business category (high sales and assets). These findings may be the result of differences in business start date between participants and the comparison group (the comparison group were in business longer on average). As well, the small number of cases in the comparison group suggests that caution should be used in interpreting this distribution.



Table 8
Financial Profile of SEA and Comparison Group Business

	SEA Participants	SEA Comparison Group	P
Assets	\$38,322	\$42,739	0.058
Average Monthly Sales	8,450	\$9,280	0.4387
Expenditures			
Average monthly payroll/ salary expenses	\$1,520	\$1,861	0.2789
Average monthly payments to partners	\$151	\$337	0.0002
Average monthly taxes	\$667	\$415	0.0009
Average monthly other expenses	\$2,557	\$2,948	0.3612
Average monthly payments to self	\$836	\$942	0.2628
Total monthly profit (sales - expenses, excluding payments to self)	\$3,053	\$3,286	0.6696

Figure 2
Monthly Sales of Businesses

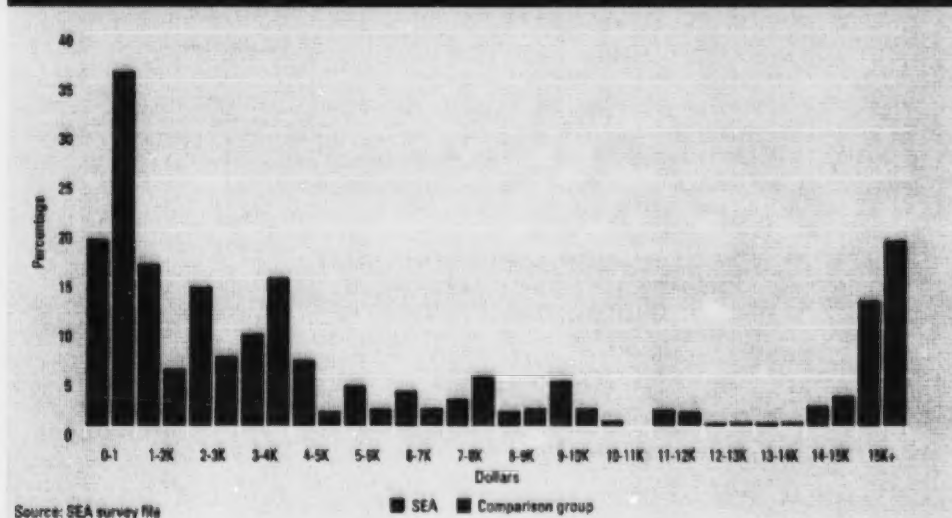
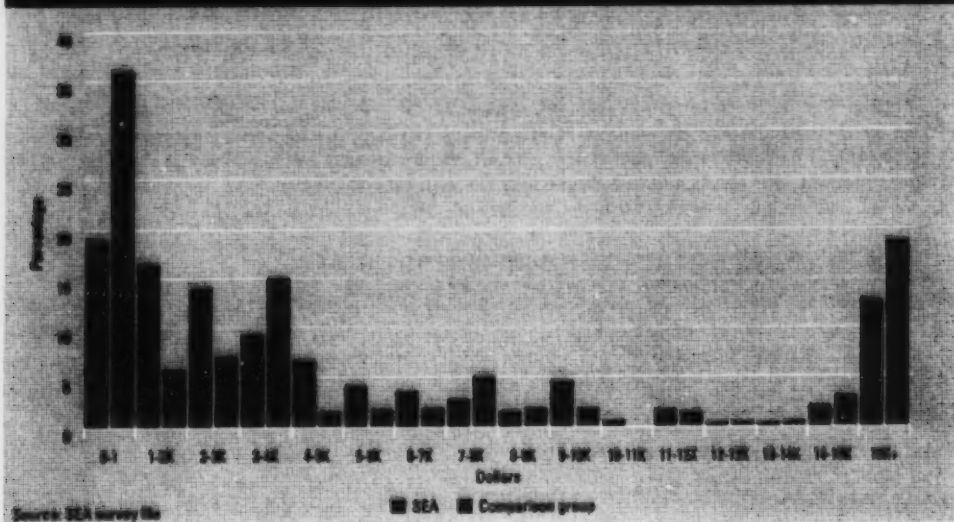
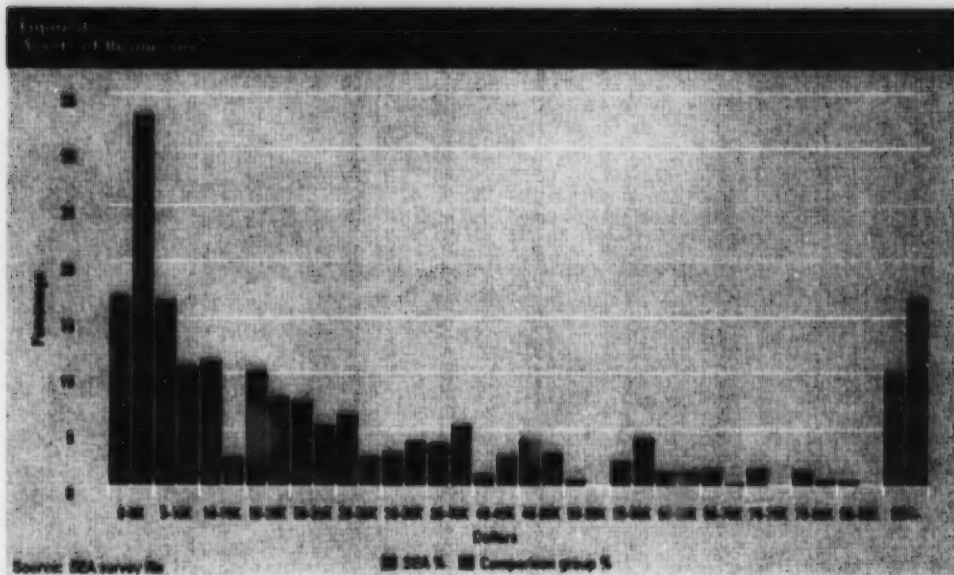


Table B *Financial Profile of SEA and Comparison Group Businesses*

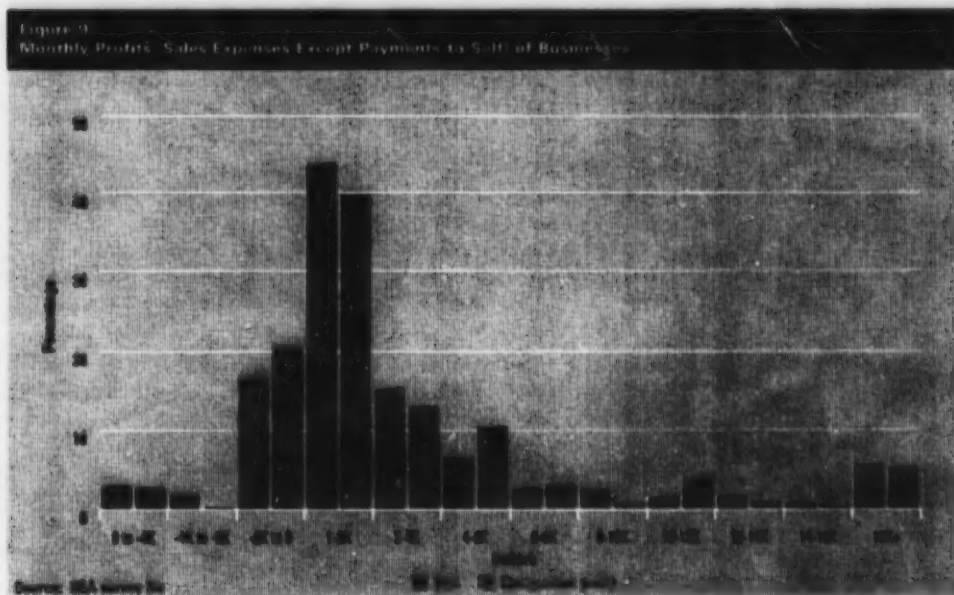
	SEA Participants	SEA Comparison Group	P
Assets	\$38,532	\$42,738	0.005
Average Monthly Sales	\$,490	\$6,288	0.007
Expenditures			
Average monthly payroll/ salary expenses	\$1,588	\$1,861	0.2768
Average monthly payments to partners	\$151	\$237	0.0002
Average monthly taxes	\$867	\$415	0.0006
Average monthly other expenses	\$2,087	\$2,949	0.0012
Average monthly payments to self	\$836	\$842	0.2628
Total monthly profit (sales - expenses, excluding payments to self)	\$3,095	\$3,286	0.0006

Figure 2 *Monthly Sales of Businesses*





The comparison group businesses have significantly higher payments to partners (being more likely than SEA participants to operate with co-owners) and reported higher taxes. Payroll expenses, "other" expenses and payments to self are similar for the two groups. Business profit is also similar for SEA participants and the comparison group). For SEA participants, sales exceed expenses (excluding payments to self as an expense) by \$3,452 each month. For the comparison group this figure is \$3,656. Figure 9 shows the distribution of business profits for SEA participants and the comparison group. The overall pattern is similar for the two groups, with the most common outcome being monthly business profits between \$1,000 and \$2,000.



5. Impacts and Effects

ISSUE 3a: To what extent have participants achieved labour market self-sufficiency?

a) Are participants less dependent on UI/Social Assistance after participation than before?

This chapter examines the impacts and effects of SEA on program participants.¹⁰ The presentation of study findings is organized according to the evaluation issues originally developed in the Terms of Reference for this study and reflected in the discussion of section 3.2. It should be noted again that the program impacts and effects presented here are based on a relatively short post-program period (eight months on average from completion of the program to time of interview). As a result, the findings, while providing sound interim results on program performance, are not definitive in terms of final outcomes.

Labour Market Self-Sufficiency

Three indicators are identified to measure the effect of SEA on the labour market self-sufficiency of participants: dependence on UI/social assistance, earnings and hours of work. Each of these is discussed in turn below.

Dependence on UI/Social Assistance

The study of the SEI program conducted by Wong *et al.* showed a reduction in UI dependency among participants which persisted two and three years after program participation. SEI participants had 1.2 fewer UI claims in the three years following the program compared to an equivalent period prior to enrolment. This translated into 35.6 fewer weeks on UI during this period and \$6,430 less in UI benefits.

The bivariate results for this evaluation study also indicate that participation in SEA has positive benefits in terms of labour market self-sufficiency. Table 9 shows the current employment status of SEA participants and the comparison group. Less than ten per cent of SEA participants are not currently employed. Only five per cent of SEA participants are currently unemployed and looking for work. (Note that SEA participants may have a lower propensity to classify themselves as unemployed. Even participants whose businesses are generating virtually no revenue may continue to classify themselves as self-employed.) There were no significant differences in employment across regions. Almost one third of comparison group members (34 per cent) are unemployed, and twenty-five per cent of these workers are currently unemployed and looking for work.

¹⁰ Unless stated otherwise, the discussion of program impacts and effects refers to regular UI recipients who participated in the program.

Table B.3
Current Employment Status

	SEA Participants (%)	All Comparison Group (%)	Comparison Group Who Started a Business Since the Claim (%)
Multiple Mentions Possible			
Self-employed	30	18	22
Employed full-time	13	43	28
Employed part-time	8	15	11
Unemployed and looking for work	5	25	8
Unemployed and not looking for work	1	4	6
Student	8	2	2
Retired	1	1	3
Homemaker	1	1	6
Other	1	1	6
Single Mentions Only			
Self-employed only	74	8	58
Self-employed and full-time employed	3	1	8
Self-employed and part-time employed	3	1	8
Full-time employed only	18	41	17
Part-time employed only	3	15	8
Other	8	38	7

The multivariate analysis confirmed that SEA participants are more likely than the comparison group to be employed by 18.3 percentage points (Table B.3, Appendix B).¹¹ Other variables associated with employment (paid or self-employment) are:

- marital status (workers who are married and whose spouses are not in the labour force or are employed are more likely than those who are single to be employed);
- gender (men are more likely to be employed than women);
- age (younger workers are more likely to be employed than older workers);
- prior self-employment experience (participants whose parents had owned their own business were more likely to be employed than those who had not);
- prior employment experience (number of weeks employed in the last two years is positively related to likelihood of being employed); and
- prior employment earning (accumulated T4 earnings in the last four years prior to the reference year).

¹¹ Tables are included in Appendix B of this report. References to tables in the appendix B are designated "B".



Table 9
Current Employment Status

	SEA Participants (%)	All Comparison Group (%)	Comparison Group Who Started a Business Since the Claim (%)
Multiple Mentions Possible			
Self-employed	80	10	72
Employed full-time	13	43	26
Employed part-time	5	16	11
Unemployed and looking for work	5	25	5
Unemployed and not looking for work	1	4	0
Student	0	2	2
Retired	1	1	0
Homemaker	1	1	0
Other	1	1	0
Single Mentions Only			
Self-employed only	74	8	58
Self-employed and full-time employed	3	1	9
Self-employed and part-time employed	3	1	9
Full-time employed only	10	41	17
Part-time employed only	3	15	6
Other	8	33	7

The multivariate analysis confirmed that SEA participants are more likely than the comparison group to be employed by 18.3 percentage points (Table B.3, Appendix B).¹¹ Other variables associated with employment (paid or self-employment) are:

- marital status (workers who are married and whose spouses are not in the labour force or are employed are more likely than those who are single to be employed);
- gender (men are more likely to be employed than women);
- age (younger workers are more likely to be employed than older workers);
- prior self-employment experience (participants whose parents had owned their own business were more likely to be employed than those who had not);
- prior employment experience (number of weeks employed in the last two years is positively related to likelihood of being employed); and
- prior employment earning (accumulated T4 earnings in the last four years prior to the reference year).

¹¹ Tables are included in Appendix B of this report. References to tables in the appendix B are designated "B".

An evaluation of two self-employment assistance demonstration projects in the United States found generally positive employment results for participants compared to non-participants. (Non-participants in this case were UI claimants who completed an application to start a business and were randomly assigned to a control group). Participants spent more time working since random assignment to the program (+1.1 to +1.9 months) and were more likely to be employed (self-employed or paid employed) at the time of the interview (+6 per cent). In the Massachusetts project, participants were also more likely to have been employed since random assignment (+5 per cent).

Dependence on UI and social assistance during the post program period are related indicators of labour market self-sufficiency. It should be noted that reduced reliance on UI by program participants, particularly in the period immediately following completion, is somewhat of a mechanical effect of participation: self-employed workers do not accumulate insurable weeks and are, therefore, ~~not~~ eligible for UI (at least until they find another job and accumulate insurable weeks) if their business should fail.

As Table 10 summarizes, in the period following the end of the reference UI claim¹² and June 1994 (the most recent data at time of writing), SEA participants claimed 92 per cent less weeks of UI benefits and 92 per cent less dollar benefits as well. The incidence of claims to the UI account by SEA participants is also much lower than among the comparison group (7.9 versus 61.1 per cent).

¹² The reference UI claim is the SEA-related claim for program participants and a randomly chosen claim for the comparison group (within trimestrial strata in order to comply with the time distribution of the SEA claims). For the latter, the reference claim was chosen at random within the program participants' claim period covered by the evaluation study.

Table 10
Dependence of UI After the Program Period

SEA Participants	Comparison Group		Self-Employed Comparison Group	
	Estimate	Econometric Results Expressed as Advantages for SEA	Estimate	Econometric Results Expressed as Advantages for SEA
Entire Post-Program/Claim Period				
Incidence of a UI claim	7.9%	61.1%	37.5%	36.8%
Average number of weeks with UI benefits	1.6	18.3	16.0	13.76
Average UI benefits	\$415	\$5,172	\$2,632	\$4,313
Percentage of weeks on UI	3.31	28.5	28.1	18.0
First Twelve Months Following the Program/Claim				
Incidence of UI claim	7.2%	48.7%	29.7%	30.3%
Average number of weeks with UI benefits	1.3	10.7	7.0	6.0
Average UI benefits	\$344	\$2,923	\$1,844	\$2,060
Percentage of weeks on UI	3.1%	22.5%	20.3%	12.1%

Note: Numbers in the top half cover the period between the end of the reference claim and the end of the available Status Vector data (June 1994); all differences are significant at $p < 0.001$. Column 5 and 6 only include SEA participants and comparison group who established their own business.

The program group and the comparison group differ by several important aspects among which is the number of weeks between the end of the reference claim and the end of the data stream from the UI files. Hence, it is crucial to statistically take into consideration such differences. After controls are put in place (see Table B.24), there is still a 37.5 percentage point difference, favouring SEA participants, in the likelihood of a claim to the UI account (after an average of 37 weeks past the end of their SEA claim). The modelled differences are still 10 less weeks of UI and \$2,632 less drawn from UI for SEA participants.

Another way to take into account the different lengths of the post-claim periods for the two treatment groups is to truncate the post period to twelve months, hence making it more comparable for the two groups. The second half of Table 10 presents UI dependency indicators for this shorter period. The advantage of the SEA participants is somewhat reduced but still significant: seven less weeks of UI benefits (over twelve months), \$1,844 less benefits and 20 percentage points less available weeks spent on UI.

Consistent with their better employment status, the bivariate survey data indicate that there is a significant difference between SEA participants and the comparison group in terms of take-up of social assistance. Four per cent of program participants received social assistance during the

2

Table 10
Dependence of UI After the Program Period

	SEA Participants	Comparison Group		Self-Employed Comparison Group	
		Estimate	Econometric Results Expressed as Advantages for SEA	Estimate	Econometric Results Expressed as Advantages for SEA
Entire Post-Program/Claim Period					
Incidence of a UI claim	7.9%	81.1%	37.9%	38.8%	8.6%
Average number of weeks with UI benefits	1.6	19.3	10.0	13.78	7.3
Average UI benefits	\$415	\$5,172	\$2,632	\$4,313	\$2,339
Percentage of weeks on UI	3.31	26.5	26.1	16.0	8.6
First Twelve Months Following the Program/Claim					
Incidence of UI claim	7.2%	49.7%	29.7%	30.3%	8.4%
Average number of weeks with UI benefits	1.3	10.7	7.0	6.0	3.5
Average UI benefits	\$344	\$2,923	\$1,844	\$2,088	\$1,265
Percentage of weeks on UI	3.1%	22.5%	20.3%	12.1%	8.0%

Note: Numbers in the top half cover the period between the end of the reference claim and the end of the available Status Vector data (June 1994); all differences are significant at $p < 0.001$. Column 5 and 6 only include SEA participants and comparison group who established their own business.

The program group and the comparison group differ by several important aspects among which is the number of weeks between the end of the reference claim and the end of the data stream from the UI files. Hence, it is crucial to statistically take into consideration such differences. After controls are put in place (see Table B.24), there is still a 37.5 percentage point difference, favouring SEA participants, in the likelihood of a claim to the UI account (after an average of 37 weeks past the end of their SEA claim). The modelled differences are still 10 less weeks of UI and \$2,632 less drawn from UI for SEA participants.

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Consistent with their better employment status, the bivariate survey data indicate that there is a significant difference between SEA participants and the comparison group in terms of take-up of social assistance. Four per cent of program participants received social assistance during the

post-program period compared to 10 per cent of non-participants. There is also a significant difference in the *intensity* of draw on social assistance. Of those who received assistance, SEA participants received social assistance for 14 weeks, on average, during the post-program period compared to 29 weeks for non-participants.

A comparison of SEA results with results obtained by self-employed comparison cases indicates that, while the latter individuals fare better than the average comparison group case, they depend more on UI than SEA participants. In the twelve months following the end of their claim, these individuals have claimed an additional \$1,265 over 3.5 more weeks than SEA participants.

In the econometric models, SEA participants are almost three percentage points (2.88 per cent) less likely to have received welfare during the post-program period compared to the comparison group. The multivariate models also confirmed that SEA participants draw social assistance for a shorter period of time compared to the comparison group (Table B.4, Appendix B). Those least likely to have relied on social assistance during the post-program period are: older workers, workers with employed spouses, workers with relatively higher levels of education, workers with prior managerial experience or workers with higher prior employment earnings. Workers with more weeks unemployed in the pre-program period were also more likely to have collected welfare during the post-program period.

Earnings

Table 11 presents the bivariate and multivariate results on earnings impacts of SEA. Six indicators were used to examine the issue of earnings effects:

- total earnings (including self-employment, earnings, paid employment earnings and business profit);
- change in earnings from the pre-program to the post-program period;
- annual personal income;
- change in personal assets from the pre-program to the post-program period;
- monthly self-employment earnings (earnings plus business profit); and
- monthly business profits (gross sales - expenses).

Table 11
Earnings: Bivariate and Multivariate Results

	BIVARIATE			MULTIVARIATE	
	SEA Participants	Comparison Group	P	Coefficient of Participants	P
Full Sample					
Total weekly earnings	\$680	\$467	0.0000	\$213	0.0100
Change in earnings	\$142	-\$17	0.0000	\$160	0.0000
Annual Personal Income(3)	\$29,533	\$29,796	0.1277	-\$1,139	0.0181
Change in Assets	-\$1,999	\$499	0.0000	-\$2,816	0.0000
Monthly Self-Employment Earnings (1)	\$2,575	\$2,575	0.8389	\$216	0.7291
Business Profit (2)	\$1,708	\$2,151	0.4095	-\$423	0.5456

(1) Sales less all expenses except amount paid to self.
(2) Sales less all expenses.
(3) Annual Personal income was taken from tax records for pre-program period and survey data for post-program and may include the program period for some participants.

The estimation of total earnings was more complicated than in other evaluation studies with the inclusion of self-employment earnings. There are two types of self-employment earnings: wages paid to the owner and business profit. Wages paid to the owner was not viewed as an accurate indicator of self-employment earnings: about one-third of program participants reported that they did not pay themselves anything. As a result, both self-employment wages and business profits (reduced by 50 per cent, where relevant, to account for co-owners' share) were combined to represent total self-employment earnings. If the participant was working at another paid/self-employment job in addition to their SEA-sponsored business (about 17 per cent worked at another paid job since completing the program and six per cent started another business), paid employment earnings were added. For the comparison group and for participants who were no longer self-employed, paid employment earnings were used as the indicator for total earnings.

ISSUE 3b: To what extent have participants achieved labour market self-sufficiency?
b) Do participants have higher earnings after SEA participation? What is their mix of self-employment earnings to earnings from paid employment? What is the effect on the overall standard of living as a result of SEA participation?

Using these indicators, the bivariate and multivariate results indicate first, that participation in SEA has a positive effect on earnings (Table 11). In the post-program period, total weekly earnings for SEA participants are \$680; \$142 more than their earnings prior to participation and \$213 more than the comparison group. It should be noted, however, that other employment research suggests that training program participants often experience a short-term decrease in earnings prior to participation (Ashenfelter, 1978). This temporary dip in earnings may distort subsequent analyses of earnings effects following program participation. The positive earnings results for SEA participants are not reflected in reported last- 12-month personal income. The



Table 11
Earnings: Bivariate and Multivariate Results

	BIVARIATE			MULTIVARIATE	
	SEA Participants	Comparison Group	P	Coefficient of Participants	P
	Full Sample				
Total weekly earnings	\$680	\$457	0.0000	\$213	0.0100
Change in earnings	\$142	-\$17	0.0000	\$188	0.0000
Annual Personal Income(3)	\$20,033	\$20,785	0.1277	-\$1,139	0.0192
Change in Assets	-\$1,889	\$498	0.0000	-\$2,818	0.0000
Monthly Self-Employment Earnings (1)	\$2,575	\$2,678	0.8380	\$218	0.7391
Business Profit (2)	\$1,708	\$2,151	0.4098	-\$429	0.5458

(1) Sales less all expenses except amount paid to self.

(2) Sales less all expenses.

(3) Annual Personal income was taken from tax records for pre-program period and survey data for post-program and may include the program period for some participants.

The estimation of total earnings was more complicated than in other evaluation studies with the inclusion of self-employment earnings. There are two types of self-employment earnings: wages paid to the owner and business profit. Wages paid to the owner was not viewed as an accurate indicator of self-employment earnings: about one-third of program participants reported that they did not pay themselves anything. As a result, both self-employment wages and business profits (reduced by 50 per cent, where relevant, to account for co-owners' share) were combined to represent total self-employment earnings. If the participant was working at another paid/self-employment job in addition to their SEA-sponsored business (about 17 per cent worked at another paid job since completing the program and six per cent started another business), paid employment earnings were added. For the comparison group and for participants who were no longer self-employed, paid employment earnings were used as the indicator for total earnings.

ISSUE 3b: To what extent have participants achieved labour market self-sufficiency?

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bivariate results show that participants' income is slightly - though not significantly - less than the comparison group (\$20,033 vs. \$20,765). In the multivariate analysis, SEA participants were also found to have less annual personal income (\$1,139 per year less) than those in the comparison group.

The earnings results of the SEI study (Wong *et al.*, 1993) also showed positive results for program participants in terms of earnings. This study found that while participants' earnings dropped sharply during the program period (more sharply than the UI-only comparison group), participants experienced significant earnings growth in the second and third years. Incrementality analysis found a \$3,911 annual earnings advantage for SEI participants compared to those in the comparison group.

Evidence from self-employment demonstration projects in the United States found mixed results in terms of earnings. The Washington project resulted in no statistically significant difference in combined self-employment and wage and salary outcomes for participants (compared to those randomly assigned to the control group). The Massachusetts project had a significant and positive impacts on participants' annual earnings of about \$6,000.

SEA participants reported that about 59 per cent of their annual personal income in the year prior to the survey was from self-employment (See Table 12). The proportion of self-employed earnings to total earnings is higher for those who report their employment status as self-employed (67 per cent) and decreases for those who have supplementary sources of paid employment earnings. Note that individuals who did not report self-employment as part of their current employment status can still declare self-employment income in the past 12 months. This may be because they were self-employed at some time during the past 12 months but are not currently self-employed, or because they failed to report self-employment status - perhaps because they did not consider self-employment as an important aspect of their work status.

Table 12
Proportion of Reported Annual Personal Income from Self-Employment
(previous twelve months)

Current Employment Status	SEA Participants (n)	Comparison Cases Who Started a Business After the End of the Claim (n)
ALL CASES - Average	39% (1,871)	30% (1,000)
75 - 100%	48.5	13.0
50 - 75%	9.3	14.7
25 - 50%	14.8	16.3
0 - 25%	27.4	54.9
Self-employment only	67% (328)	39% (138)
Self-employment and full-time job	38% (22)	46% (8)
Self-employment and part-time job	41% (36)	21% (28)
Full-time job only	33% (188)	30% (142)
Part-time job only	27% (27)	20% (8)
Others	39% (185)	27% (95)

Source: Survey of SEA Participants and Non-Participants.

These data are at odds with previous findings from the SEI study (Wong *et al.*, 1993) which found that self-employment earnings never represented more than 37 per cent of participants' earnings in the three years following the program. The short post-program period in this evaluation is one reason for this discrepancy and, based on the SEI findings, the proportion of self-employment earnings should be expected to decline as business survival rates decline. Wong *et al.* identify the third year of self-employment as particularly critical to the survival rate of new businesses.

SEA program participants fared more poorly than the comparison group in terms of change in personal assets between the pre- and the post-program period (Table B.8). Between the pre- and post-program period program participants experienced a loss in net personal assets (assets minus debts) of \$2,817. The comparison group experienced a gain in net assets over this time of \$498 (Table 11). Note that this estimation does not include business assets and debts for program participants and those in the comparison group who were self-employed.

ISSUE 3c: To what extent have participants achieved labour market self-sufficiency?
c) Do participants work more hours after SEA than before? What is the ratio of hours worked to earnings before and after the program? What is the distribution of hours worked by employment type?

Business profits were measured as total sales minus expenses. There were no significant differences between SEA-sponsored businesses and businesses started by individuals in the comparison group in terms of self-employment earnings or of business profits in the bivariate or



Table 12
Proportion of Reported Annual Personal Income from Self-Employment
(previous twelve months)

Current Employment Status	SEA Participants (n)	Comparison Cases Who Started a Business After the End of the Claim (n)
ALL CASES - Average	59% (1,071)	33% (194)
75 - 100%	48.3	15.5
50 - 75%	9.2	14.7
25 - 50%	14.0	15.2
0 - 25%	30.4	54.6
Self-employment only	67% (796)	36% (134)
Self-employment and full-time job	58% (22)	48% (8)
Self-employment and part-time job	41% (38)	21% (23)
Full-time job only	33% (108)	20% (16)
Part-time job only	27% (27)	29% (8)
Others	39% (80)	37% (8)

Source: Survey of SEA Participants and Non-Participants.

These data are at odds with previous findings from the SEI study (Wong *et al.*, 1993) which found that self-employment earnings never represented more than 37 per cent of participants' earnings in the three years following the program. The short post-program period in this evaluation is one reason for this discrepancy and, based on the SEI findings, the proportion of self-employment earnings should be expected to decline as business survival rates decline. Wong *et al.* identify the third year of self-employment as particularly critical to the survival rate of new businesses.

SEA program participants fared more poorly than the comparison group in terms of change in personal assets between the pre- and the post-program period (Table B.8). Between the pre- and post-program period program participants experienced a loss in net personal assets (assets minus debts) of \$2,817. The comparison group experienced a gain in net assets over this time of \$498 (Table 11). Note that this estimation does not include business assets and debts for program participants and those in the comparison group who were self-employed.

ISSUE 3c: To what extent have participants achieved labour market self-sufficiency?
c) Do participants work more hours after SEA than before? What is the ratio of hours worked to earnings before and after the program? What is the distribution of hours worked by employment type?

Business profits were measured as total sales minus expenses. There were no significant differences between SEA-sponsored businesses and businesses started by individuals in the comparison group in terms of self-employment earnings or of business profits in the bivariate or

multivariate analyses. Self-employment earnings were \$1,724 per month for participants and \$2,056 for the comparison group (Table 11). Business profits were \$1,708 for the participants and \$2,151 for the comparison group. Businesses in the Atlantic region generated higher personal profits for owners than businesses in other regions.

In addition to financial impacts, the non-labour force effects of SEA are an important consideration. The bivariate results suggest that the program has positive impacts in this area. SEA program participants expressed greater satisfaction with their lives compared to those in the comparison group on all aspects: overall financial security (mean rating of 4.2 and 3.8 respectively on a 7-point scale), business or job skills (5.9 and 5.4 respectively), level of control (5.5 and 5.2 respectively), and overall quality (5.6 and 5.3 respectively).

The multivariate analysis used factor variables (a distillation of several variables) to represent two types of non-labour force effects: satisfaction with life and confidence in the labour market. The positive effects of program participation remain in the multivariate modelling. SEA participants are more likely to be satisfied with their life (0.3 greater on a 7-point scale) and express greater confidence in their position in the labour market (0.2 greater on a 7-point scale) (Tables B. 11 and B. 12 respectively). Participation in self-employment training has a strong, positive effect on confidence. Younger participants and participants with stronger employment experience (i.e., more weeks working in the previous 24 months) and those who are more willing to take risks were more confident in their position in the labour market and are more likely to be satisfied. Female participants and participants whose spouse is employed are more likely to be satisfied.

Hours of Work

The surveys of SEA participants and the comparison group of non-participants provide information on hours worked during the pre-program period, as well as hours worked during the post-program period. The bivariate survey results indicate that program participants work more hours after SEA than before. SEA participants worked, on average, 42 hours per week at their job prior to participation in the program. Participants worked at their SEA-sponsored business 56 hours per week on average. The comparison group overall experienced no change in the number of hours worked between the pre- and post-program period, working 42 hours per week in both periods. Those in the comparison group who established their own business experienced a similar, though not as dramatic, increase in hours compared to SEA participants. Self-employed individuals in the comparison group worked, on average, 43 hours per week prior to starting their own business and 47 hours per week while self-employed.

ISSUE 4: To what extent would SEA participants have initiated self-employment without the assistance of the program? Do rejected clients go on to establish self-employment?

The multivariate models confirm that participation in SEA is associated with an increase in the number of hours worked per week. The number of hours worked by SEA participants increased by 13 hours per week between the pre and post-program period (Table B. 13). SEA participants work, on average, 14 hours more per week than the comparison group (Table B.14). Younger workers and male workers tend to work more hours per week than other groups.

The ratio of hours worked to earnings falls over the period studied for both the participant and comparison groups. SEA participants' hourly earnings decrease from \$13 per hour prior to the program to \$12 per hour in the post-program period. The drop in hourly earnings, despite increased earnings overall, is the result of a *greater* increase in hours worked. Hourly earnings also decreased for the comparison group from \$12 per hour to \$11 per hour.

Non-Incremental Program Effort

Non-incremental program effort, or dead weight, refers to the proportion of program participants who would have started their business even in the absence of the program. This issue is addressed primarily through evidence from the survey of SEA participants (self-reported likelihood of starting business without SEA) and the survey of rejected clients (proportion who went on to start a business). Fifty-six per cent of participants stated that, had the Self-Employment Assistance program not been available, they would have started their own business even in the absence of the program. Of those respondents who indicated they would *not* have started their own business in the absence of the SEA program, 70 per cent (or about 30 per cent of all participants) said they would have started this business at a later date, for a total of 86 per cent. Given the tendency of such measurement method to provide overestimates, we consider this the upper limit of the dead weight.

Of those applicants to SEA who were refused entry into the program, 41 per cent went on to establish their own business. About one-third (34 per cent) of rejected applicants are currently self-employed. Only a handful of rejected applicants were rejected because they would have gone ahead without the program. The majority were refused because the proposed projects were not expected to be successful. If one-third of rejected applicants - those whose businesses were *not* expected to succeed - went on to pursue self-employment, it is likely that an even higher proportion of the program participants who were expected to succeed would have gone on to start their own business. Assuming that the selection process performs better than random assignment. This proportion of 34 per cent represents the lower bound of our estimate of deadweight.

We have attempted to perform incrementality calculations similar to those used in the recent Work Sharing Program evaluation. However, the small size of the groups concerned and measurement error led to highly unstable results. Overall, an estimate of non-incremental effort of 50 per cent fits the evidence available. This figure also corresponds to international experience. For example, project analysts in the United Kingdom estimated deadweight to be approximately 40 per cent and a slightly higher figure - 50 per cent - was estimated for the Irish self-employment assistance program (Scott, 1992). OECD reviews of this international literature also concluded full and partial deadweight to be between 40 and 60 per cent (OECD, 1993).

ISSUE 5: What factors are more likely to contribute to success in self-employment? In particular, what is the role of previous self-employment experience, previous small business training, additional capitalization by individuals and previous work history?

Factors Contributing to Business Success

To understand which factors are associated with success, "business success" was defined using several indicators. These indicators are:

- business survival (whether the owner is currently operating his or her business);
- employment created (number of full-time jobs created, number of part-time jobs created, number of person-months of employment created); and
- sales.

The bivariate and econometric analyses used these as dependent variables to assess the importance of various individual background variables and program parameters in contributing to business survival and success.

Previous self-employment experience was examined by Wong *et al.*'s study of the SEI option in terms of its effect on outcomes. This study found the mean earnings from self-employment in the post-program period were higher for participants with prior self-employment experience (66 per cent higher). Employment earnings were 14 per cent higher in the post-program period for participants with self-employment experience.

This evaluation study of SEA did not confirm the relationship between prior self-employment experience and program success. Both the bivariate and multivariate analyses indicated that exposure to self-employment - having a parent who was self-employed - does not appear to be related to business survival or to any of the success indicators used here. Within the SEA group, it was also found that previous experience with self-employment was not statistically significantly related with any of the indicators of business success of post-program labour force history indicators used.

ISSUE 6: How does the success rate of SEA-initiated businesses compare to the success rate of comparable businesses started without the assistance of SEA? How does the success rate vary among different target groups within the SEA program?

Prior managerial experience appeared to be important in predicting both business survival and success. The bivariate results showed that respondents who had managerial responsibilities at their previous job are more likely to be in surviving businesses. This was not significant in the econometric analysis. Previous managerial responsibility was also positively related to the level of employment created in the bivariate results. The multivariate analysis confirmed that managerial experience is positively related to the number of full-time and part-time jobs created and to total business sales. Managerial experience is not significant in predicting number of person months of employment (Tables B.14, B.15 and B.19 respectively). Prior work history (number of weeks employed in the 24 months prior to the program) was also positively related to the number of full-time jobs created and total business sales.

Amount of SEA training (measured as number of hours of training) was not found to be significant in predicting business success of program participants. In both the bivariate and multivariate results, small business training outside the SEA program¹³ was found to be positively associated with business survival, though this factor was not consistently related to other success indicators. In the econometric models, training outside the SEA program increased the number of full-time jobs created.

Businesses with higher levels of personal investments by owners are more likely to have survived than businesses with lower personal investments. Greater capitalization is also related to employment creation and total business sales. This was significant in both the bivariate and multivariate models. Businesses who received financing from a bank (as opposed to other sources) were more likely to have hired full-time employees and to have higher sales.

Other indicators which proved significant in predicting total business sales were: industry (business in the sales industry had higher total sales); gender (businesses started by men had

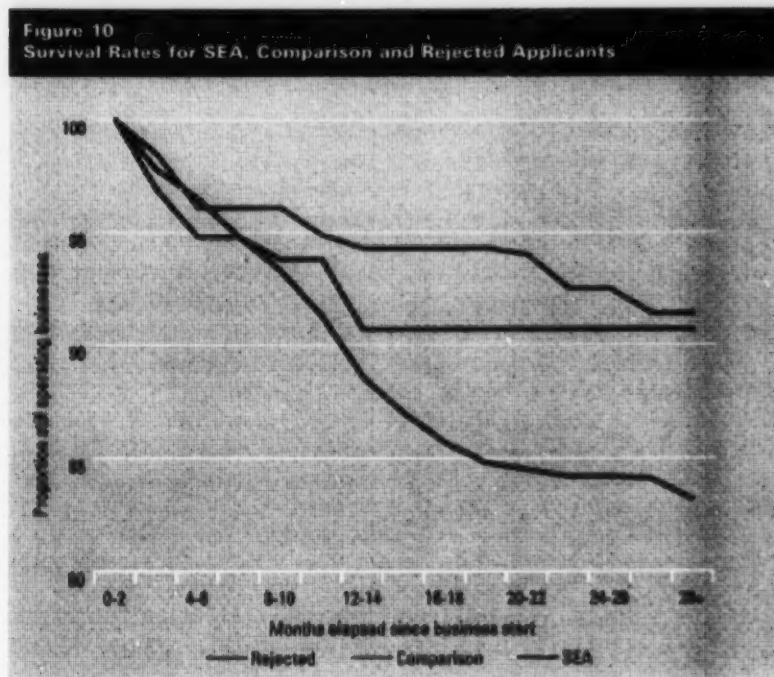
¹³ The incremental impact of SEA training was not tested as the majority of participants are supposed to have participated in this mandatory component of the program.

higher total sales); region (Quebec and Atlantic had higher sales); and spouse's employment (those whose spouses were employed had higher sales).

Rate of Business Success

Survival rates of SEA-sponsored businesses (compared to those of businesses started without SEA) is an important criterion of program success. The bivariate survey results indicate that businesses started by the comparison group and rejected applicants are somewhat more likely to survive than businesses started by the program group. Eighty-three per cent of SEA sponsored business were still operating at the time of the survey compared to 91 per cent of businesses started by the comparison group and 90 per cent of the businesses started by rejected applicants. The econometric models confirm that comparison group businesses are 6.6 percentage points more likely to survive than SEA-sponsored businesses but this estimate is not statistically significant (Table B. 17). There were no significant differences in survival rates across regions.

Figure 10 presents the survival rates for businesses started by SEA participants, the comparison group and rejected applicants. As mentioned above, survival rates for SEA-sponsored businesses are slightly lower than for businesses started by the comparison group or rejected applicants. Survival rates begin to diverge for the two groups approximately 10 to 12 weeks after business start-up. Survival rates decline steadily, albeit slowly, over time.



ISSUE 7: What is the economic rate of return on SEA investment?

Survival rates of SEA participants are consistent with the international experience in this area. For example, in France survival rates after one year are 84 per cent and 88 per cent in Ireland for the same time period. It should be noted that survival rates measure short term survival only - for participants, survival was measured between three and 18 months after completion of the program. Survival rates can only be expected to decrease in the future - 19 per cent of participants and 17 per cent of the comparison group who started their own business agreed that "there (was) a good chance (their) business could fold in the next couple of years".

There are few differences in survival rates of SEA-sponsored target groups at the bivariate level. The exception is disability: those who reported having a disability are less likely to be still operating their business. While business survival rates were similar for male and female participants, men were more likely to have started larger ventures; these businesses had greater gross sales, higher revenues for the owner and greater assets. The business survival rate for SAR participants was 85 per cent, slightly higher than for other participants. Sample sizes were too small to rigorously assess differences in business survival by target group.

Economic Rate of Return

The economic rate of return on investment for SEA participants is calculated as:

$$\frac{(\text{one-time individual gains} + \text{monthly gains}) - \text{option costs}}{\text{personal equity investment}} - 1$$

The *one-time individual gains* are:

- the average SEA benefits (expressed as a difference from comparison group benefits - see next section): \$12,975; and
- company assets: \$19,430.

The *monthly individual gains* are:

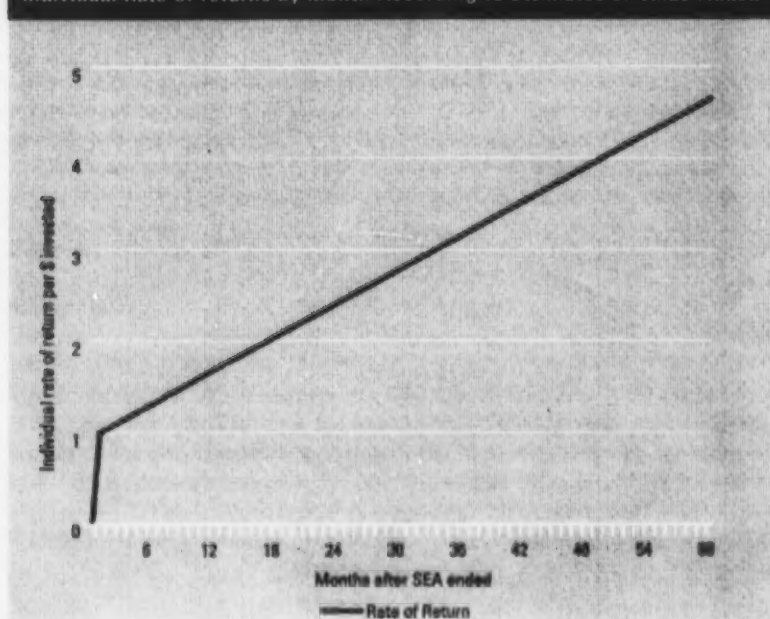
- monthly business profits: \$2,575; and
- monthly sideline job income: \$667.

Option costs include:

- UI benefits forfeited after the SEA period (a monthly cost expressed as a difference from comparison group benefits - see section 6.1a): \$154; and
- forfeited paid earnings (from the comparison group): \$2,045 per month.

The *personal equity investment* averaged at \$16,814. Thus, over a 12-month period, the monthly rate of return on investment is about \$1.67 per investment dollar for SEA participants. Figure 11 presents the evaluation of this rate over a five year period. This estimation assumes that all of the above factors individual gains and option costs -remain the same.

Figure 11 Individual Rate of returns by Month According to Estimates of Value Added



The economic rate of return for society is calculated as:

$$\frac{\text{monthly sales} - \text{forfeited production}}{\text{additional cost to the UI account} - \text{reduced UI draw after}}$$

monthly sales are estimated at \$8,423 for SEA participants and reduced by a 50 per cent dead weight factor;

forfeited production is the amount of production which would have been generated if the SEA participants had been paid employed (from the comparison group): \$2,045 in salary multiplied by a value added factor¹⁴ which bridges salary to the value of production and reduced by a 50 per cent dead weight factor;

additional cost to the UI account (expressed as a difference from comparison group benefits - see next section): \$12,975; and

reduced UI draw after (expressed as a monthly difference from the comparison group -see section 6.1a): \$1,844 / 12 = \$154.

Since the value added factor is unknown, social rate of return curves were calculated for values of 1 to 3 by 0.5 increments. The results are presented in Figure 12¹⁵. The breakdown point is achieved within 17 months of the end of the program participation except for a value added of 300 per cent (which is a highly unlikely value).¹⁶ This analysis suggests that SEA is highly socially desirable from an economic rate of return perspective.

¹⁴ Real output per salary paid in percentage.

¹⁵ This analysis assumes no displacement effects and no impacts used in the SEA production.

¹⁶ Real gross domestic product per labour compensation for all business sector industries was 1.14 in 1993 and this ratio has never exceeded 1.58 for the last decade (Statistics Canada, 1994).

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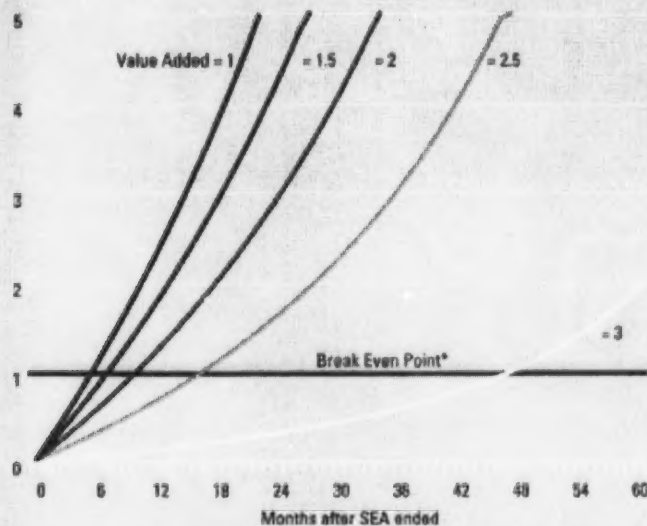
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Figure 12
Social Rate of Return by Month According to Estimates of Value Added



* The break even point is the amount of time following program completion at which the costs of the SEA program to society are equalled by the social benefits of the program

Table 13
Utilization of the UI Program During the Reference Claim

	SEA Participants	Comparison Group
Average number of weeks with UI benefits	70	27
Average UI benefits	\$22,180	\$6,620
Results of economic analyses expressed as increased usage by SEA participants		
Average number of weeks with UI benefits	38.9	
Average UI benefits	\$12,975	

Source: Status Vector File.

ISSUE 8: What has been the impact of SEA on the UI Account?

Impact on the UI Account

The impact of SEA on the UI Account is addressed through an analysis of administrative data. Table 13 presents information on the length and cost of the reference UI claim.

SEA participants represented a substantial additional cost for the UI program. Descriptive statistics indicate that SEA participants received 43 more weeks of benefits and \$15,568 more in benefits than the comparison group. Thus, the 52 weeks of the SEA program are 87 per cent incremental over the normal claim. These descriptive results are confirmed by the econometric analyses, although the incremental draw is dampened to 39 weeks and \$13,000.

Table 14 shows unemployment insurance benefits following the end of the reference claim. SEA participants collected UI for significantly fewer weeks immediately following their reference claim (1-12 months after) and in the medium-term (13-24 following their reference claim) than the comparison group. This translates into over \$2,500 less in UI benefits in the short-term and \$1,695 less in the medium-term than the comparison group.

Table 14
Utilization of UI Following Reference Claim

	SEA Participants (n)	Comparison Group (n)	P
Number of weeks received UI 1-12 months after the end of the claim	1.3 (1,435)	10.7 (2,441)	0.000
Amount of UI received 1-12 months after the end of the claim	\$345 (1,435)	\$2,923 (2,441)	0.000
Number of weeks received UI 13-24 months after the end of the claim	1.8 (214)	8.2 (1,848)	0.000
Amount of UI received 13-24 months after the end of the claim	\$482 (214)	\$2,157 (1,848)	0.000

Source: Status Vector File

These impacts must be considered in light of the reduction in UI usage after the program already documented. This reduction has been estimated at \$2,632 or about \$70 per week after the end of the program. If this pace persisted, it would take about 3 years and 9 months for the reduced post-program draw to compensate the additional SEA UI cost. Of course, this conclusion does not take into account the increased likelihood of UI usage as time goes by (a factor which would increase the length of compensation time) or the job created by the SEA businesses (a factor which would decrease the length of compensation time).

Displacement

Some critics of self-employment assistance programs argue that the "unnatural" creation of small businesses through government intervention in the economy may have neutral or even negative

Figure 12
Social Rate of Return by Month According to Estimates of Value Added

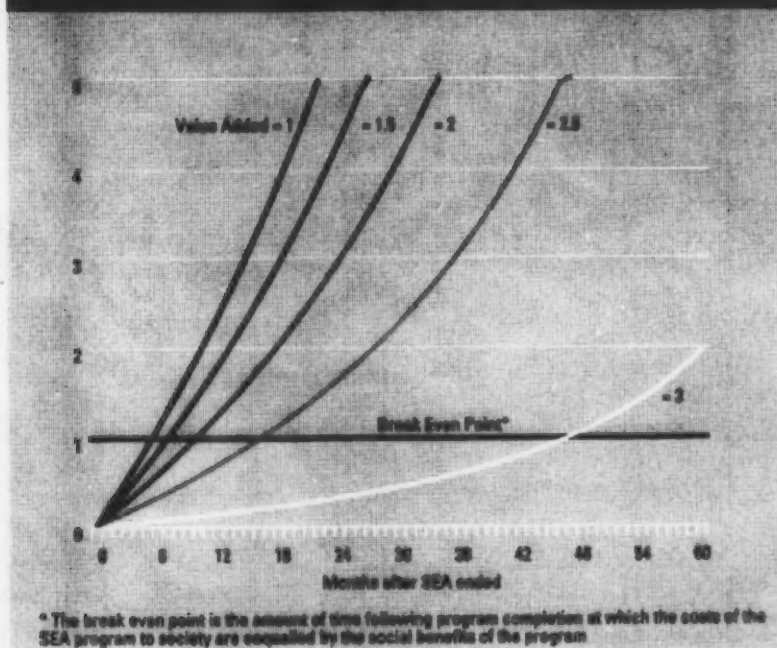


Table 13
Utilization of the UI Program During the Reference Claim

	SEA Participants	Comparison Group
Average number of weeks with UI benefits	76	27
Average UI benefits	\$22,188	\$6,820
Results of economic analyses expressed as increased usage by SEA participants		
Average number of weeks with UI benefits	26.3	
Average UI benefits	\$12,375	

Source: Status Vector File.

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Number of weeks received UI 1-12 months after the end of the claim	1.3 (1,435)	18.7 (2,441)	0.000
Amount of UI received 1-12 months after the end of the claim	\$345 (1,435)	\$2,923 (2,441)	0.000
Number of weeks received UI 13-24 months after the end of the claim	1.8 (214)	8.2 (1,046)	0.000
Amount of UI received 13-24 months after the end of the claim	\$462 (214)	\$2,157 (1,046)	0.000

Source: Status Vector File

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Displacement

Some critics of self-employment assistance programs argue that the "unnatural" creation of small businesses through government intervention in the economy may have neutral or even negative

effects when the issue of displacement is considered. If economic activity is assumed to be a zero-sum game, government-assisted self-employment may be expected to displace other businesses and workers through increased competition.

A minority of those who have studied the long-standing British and French programs have voiced concern that the programs' positive effects on participants may be significantly negated by the displacement of existing business (micro-entrepreneurs who, at least in the short term, survive in large part because of government subsidy, and less by their introduction of innovation into the market place). To this point, however, no rigorous attempt has been made to measure the displacement effect of self-employment programs. Aside from the inherent difficulty of measuring this effect, the scope of program evaluations in the field has simply been too narrow to adequately consider this issue (Self-Employment Development Initiatives and the Corporation for Enterprise Development, 1991).

ISSUE 9: What is the level of displacement of existing business activity as a result of the SEA program?

The level of displacement of existing business activity as a result of SEA was addressed in a qualitative fashion only in this evaluation, based on the views of SEA delivery agents. According to program delivery agents, although business in some communities feel that SEA participants have an unfair advantage, displacement rarely occurs. The possibility of displacement is almost always addressed when eligibility is being determined. Delivery agents are also careful to ensure that participants are not attempting to compete unfairly (e.g., under-pricing).

Job Creation

Surveyed business-owners in the participant and comparison groups were asked to report the number of full-time and part-time jobs which were created as a result of their business and the number of months of employment this represented. The bivariate results indicate that SEA-sponsored and comparison group businesses had about equivalent levels of job creation (Table 14). About 37 per cent of SEA-sponsored businesses hired paid employees (full-time or part-time). These businesses created, on average, 1.5 full-time and 1.8 part-time jobs. This represents about 16 months of employment for each business that hired paid employees or 5.6 months of employment per business. This finding is slightly less than estimates from previous research conducted for the Canadian Labour Force Development Board which found that each SEA participant created 1.1 full-time or full time equivalent jobs. In total, during the period studied, participants in the program created 7,264 full-time or full-time equivalent jobs.

Table 15
Per Cent of Businesses Which Hire Employees

	SEA Participants	Comparison Group
Employed full-time employee	23.2	17.3
Employed part-time employee	28.7	22.5
Employed full or part time employee	36.3	29.8

Source: Survey of SEA Participants and Non-Participants

effects when the issue of displacement is considered. If economic activity is assumed to be a zero-sum game, government-assisted self-employment may be expected to displace other businesses and workers through increased competition.

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Source: Survey of SEA Participants and Non-Participants

ISSUE 10

To what extent does the SEA program result in direct job creation in addition to the self-employment of the UI claimant/SAR participant? How does the rate of direct job creation differ between home-based businesses and businesses located outside the home?

About 30 per cent of businesses started by non-participants hired paid employees, creating on average, 1.5 full-time and 2.1 part-time jobs. These represent about 18 person months of employment per business that hired employees or 5.2 months of employment per business. Note that this measure is time sensitive and the number of months of employment created is expected to increase as the length of time businesses are in operation increases.

Home-based businesses were less likely than businesses in rented premises to have hired paid employees. Less than one-third of home-based businesses reported hiring paid employees compared to half of participants that were located outside the home. It is possible, however, that the causality is reversed: it is conceivable that one rents premises because one has to hire staff.

The multivariate analysis confirmed that there were no significant differences between SEA-sponsored businesses and businesses started by the comparison group in terms of number of full-time and part-time jobs created and the person months of employment created (Table B.20). Businesses in the Atlantic created more months of employment than businesses in other regions.

Local economies appear to benefit from spin-off generated by SEA businesses. For the period from April 1992 to March 1993, 12,349 clients were accepted in the program. They paid a monthly average of \$1,518 to employees and purchased goods and services at the rate of \$2,631 per month. This amounts to \$615 million in economic impacts during the twelve months of program participation, more than \$300 million after discarding the "dead weight" cases. In comparison, the additive draw on the UI account was \$161 million ($\$13,000 \times 12,349$) and the reduction in post-program UI draw was \$33 million ($\$2,632 \times 12,349$) for about eight months or \$49 million for the first year, for a net draw of \$112 million. Thus, SEA participants generated a net economic benefit of \$188 million during fiscal year 1993/94.

Rejected Applicants

Based on the extent to which applicants meet program eligibility and suitability criteria, they are accepted or rejected. It is the responsibility of delivery agents to determine if an applicant is suitable for participation in the SEA program and to make a recommendation to the CEC for approval. The selection process can take a variety of forms and may be very formal or very informal. According to delivery agents, applicants who are not recommended for participation have rated poorly in terms of one or more of the criteria for selection. In some cases, applicants are rejected because the nature of their business is incompatible with the local economic conditions; for example, the venture is judged to be in unfair competition with other businesses or the local market could not support the business. In other cases, the applicant or his or her business idea is judged to be not appropriate. The individual may not be suited for their proposed business (lacking skills or industry experience) or not suited for self-employment. Poor market research may also be a reason for rejecting an applicant. Finally, applicants are rejected if their business is expected to go ahead without SEA funding.

ISSUE 12

What is the profile of individuals who are refused entry into the SEA program? Why are individuals refused entry into the SEA program?

A manual review of BDC rejected applicant lists was conducted to examine reasons for rejection. For those cases that provided a reason for refusal, the most important reasons were: business not viable (23 per cent); unfair competition (20 per cent); applicant ineligible (12 per cent); insufficient market (11 per cent); insufficient start-up capital (nine per cent); and SEA funds unavailable/more applications than funds (nine per cent).

The profile generated by the survey of rejected applicants did not reveal many systematic differences with the SEA participant group. Rejected applicants and SEA participants are comparable in terms of prior occupation, having nearly equivalent earnings and skill requirements as the participant group. Rejected applicants did, however, have a somewhat weaker attachment to the labour force, spending more time unemployed in the last two years than participants and being more likely to have collected social assistance during that time (rejected applicants reported being out of work for 31 weeks in the last 24 months compared to 22 weeks for the comparison group and 15 weeks for SEA participants).

Rejected applicants and SEA participants are similar in terms of education levels. However, rejected applicants had perhaps less financial flexibility than SEA participants. The rejected group had more dependents than participants.

Rejected applicants' labour market experience following the end of their UI claim is less positive compared to SEA participants. Seventeen per cent of rejected applicants are unemployed and looking for work. This is significantly higher than the five per cent of SEA participants who are unemployed, though rejected applicants compare favourably to the comparison group (of which 25 per cent are unemployed and looking for work). Rejected applicants were *not* working for 38 weeks following their reference job loss, similar to the comparison group (40 weeks) but significantly higher than SEA participants (5 weeks).

Of those rejected applicants who were working, income and skill levels were comparable to the comparison group, but slightly (though not significantly) lower than SEA participants. Personal income levels of rejected applicants were significantly lower than SEA participants.

Sixty-one per cent of rejected applicants claimed UI following their reference claim. Rejected applicants were also more likely than both SEA participants and the comparison group, to have collected social assistance since their initial claim.

It is worth noting that 34 per cent of rejected applicants are currently self-employed; many of these are likely the same individuals who were classified as not having a sustainable business idea in their application to SEA. The experience of SEA-type programs in the United States has raised questions about the qualifications of delivery agents to assess the viability of a business idea. Recent evaluation work has suggested that these judgements are often inaccurate, and suggests eliminating screening based on business viability (Benus, 1994).

SEA Target Client Groups

While previous sections of this chapter have examined the circumstances where SEA was found to be successful, this section highlights differences in the participation profile and outcomes for various client groups. Four client groups are examined here: SAR, women, youth and equity

groups (visible minorities, disabled, aboriginal). Regional variations are also described. For these client groups (i.e., equity groups) and outcome measures (i.e., self-employment business indicators), the number of cases in the sample was too small to permit multivariate analyses. Bivariate data comparing results for specific SEA client groups (i.e., women participants in SEA compared to men) are used where appropriate.

SAR Participants

Social assistance recipients are a particular target group of the SEA program. This study provides some evidence, though limited, on the program and post-program experiences of this target group compared to regular UI claimants. Note that because a complete sampling frame for SAR participants was not available (and, therefore, sampling of respondents is not random) and the total number of cases is small (sample size is 100), these findings should be considered preliminary. Results could not be submitted to a multivariate analysis, nor is there a comparable non-participant group for SARs.

SEA businesses started by SAR participants were different from businesses started by other participants in key ways. First, in terms of financing, SAR participants were more likely to have secured a loan to start their own business compared to other SEA participants and the comparison group. However, whereas regular SEA participants were most likely to have received a loan from a bank, SAR participants were provided loans by the Business Development Centre (38 per cent) and family or friends (32 per cent). Thirty per cent of SAR participants received a loan from a bank.

SAR participants had a significantly lower initial personal equity investment in their business compared to the participant group (\$9,718). A relatively lower proportion of SAR participants' equity contribution was cash (one in five reported no cash equity investment).

Like other SEA participants, businesses started by SAR participants were concentrated in the service and retail trade sectors. Seventy-one per cent reported that their business was related to work they had done in the past (similar to the regular SEA program group). The majority of SAR participants operate year-round businesses (operating 11.3 months of the year on average). SAR participants report long hours of work (51 hours per week on average). Most businesses started by SAR participants (61 per cent) were home-based businesses and one in five businesses were operated with co-owners or partners (also similar to the regular SEA participant group).

There were no significant differences in terms of the financial profile of SAR businesses compared to other SEA participants. Gross sales and assets were similar for both groups. Payroll expenses and payments to partners were less for SAR businesses (\$702 and \$99 per month respectively). Reported taxation expenditures were also lower compared to SEA businesses (\$286 per month).

Bivariate analyses of the business outcome data indicate that, overall, SAR participants' outcomes were similar or somewhat less successful than other SEA participants. Results include:

- Non-incremental program effort, based on the self-reports of participants is similar for SARs compared to other participants. Sixty-two per cent say they would have started their own business even in the absence of the SEA program. Of those who stated they would not have started their own business, 71 per cent claimed they would have started a business at a later date.
- Business survival rates did not differ significantly between SAR participants and other SEA participants. At the time of the interview, 85 per cent of SAR participants were still operating their SEA business.

- Reported self-employment earnings were higher for SAR participants compared to regular SEA participants. Before taxes, SAR participants earned \$2,625 per month (compared to \$2,511 per month for other SEA participants).
- Monthly business profit - defined as gross sales minus expenses - was \$2,222 for SAR participants, slightly, but not significantly higher than for other participants.
- SAR participants were less likely than other SEA participants to have hired paid employees. Twenty-nine per cent hired paid employees at their business (compared to 37 per cent of other SEA participants). There were no significant differences in the amount of employment created.
- SAR participants reported less use of UI following the program (12 per cent) but were more likely to have collected welfare following program completion than regular UI participants (51 per cent).

Women

The profile of SEA businesses started by women suggests a number of key differences compared to those started by men. Businesses started by women were more likely to be concentrated in the retail trade, business services and health and social services sectors. These businesses were also somewhat more likely to be home-based (62 per cent of businesses started by women are home-based compared to 58 per cent started by men) and female participants worked fewer hours per week compared to male participants (51 hours per week compared to 58 hours). The personal equity investment of female participants was lower compared to their male counterparts, however, there were no differences in their reliance on external funding sources.

There is no difference in the business survival rate between SEA businesses started by women and those started by men. Overall, businesses started by women were somewhat smaller than those started by men and showed less profitability. Businesses started by women were also somewhat less likely to have hired paid employees (though this narrowly missed statistical significance).

In terms of overall outcomes, there were no significant differences between male and female participants in terms of UI dependence in the post-program period, though, men were somewhat more likely to have received welfare after the program. Both self-employment earnings and combined self-employed and paid earnings were higher for men compared to women.

Youth

There were very few significant differences in the business profile or business outcomes between participants in the SEA who were under 30 years of age and those who were 30 or over. Industry sector, financing, location and hours worked were similar for both age groups. The youth group had a lower personal equity investment in their business (\$11,300 compared to \$17,500) and were also more likely to have secured a business loan from a BDC. Despite the difference in initial equity investment, there were no significant differences based on age in terms of business survival rate, sales, revenues or profitability. As well, there were no significant differences between youth and older workers in utilization of UI or social assistance in the post-program period.

Equity Groups

The business profile of equity group¹⁷ participants is very similar to businesses started by non-equity group participants in the SEA program. The groups only differ somewhat in terms of financing - equity group participants were less likely to have received a loan from a BDC and were also somewhat less likely, though not significantly, to have received a loan from a bank.

Equity group members had a lower business survival rate compared to non-equity group participants ($p=.05$). Seventy-eight per cent of businesses started by equity group members were operating at the time of the interview compared to 84 per cent of those started by non-equity group participants. Equity group members also reported lower personal earnings from their business (\$593 compared to \$872 for non-equity group participants), though combined self-employment and paid earnings were approximately equivalent for the two groups. Equity group members were somewhat more likely to have collected social assistance in the post-program period, however there were no significant differences between the two groups in terms of UI usage.

Region

There were significant differences in both the business profile and business outcomes based on region. The difference in business profile may be indicative of variations in program delivery across regions, differences in the economic and social conditions of communities or differences in the characteristics of participants. Highlights of regional differences include:

- Quebec participants were most likely compared to participants from other regions to have received a loan from a bank to help start their businesses and were least likely to have received financial assistance from friends or family;
- Atlantic participants were mostly likely of all regions to have received a government business loan; and
- businesses started by participants in British Columbia were more likely to be home-based (72 per cent) and businesses started by participants in Quebec (47 per cent) were least likely to be home-based.

In terms of business outcomes, there were no significant differences in business survival rates across regions. However, the data consistently indicate some other significant differences between SEA businesses started by participants in Quebec and Atlantic compared to those started in Ontario and Western Canada. Businesses started in Quebec and the Atlantic were more likely to hire paid employees (43 and 47 per cent hired paid employees respectively compared to between 30 and 33 per cent of businesses in other regions). Businesses in Quebec and the Atlantic also show greater sales (significant at the bivariate level only) and greater self-employment earnings, assets, and business profit. The better profitability of businesses in the Atlantic is the combined result of slightly higher sales and somewhat lower reported rates of taxation. There were no significant differences between regions on either self-employment earnings or paid earnings.

¹⁷ Equity group status was established based on self-reports from the survey data.

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What is the experience of participants who do not continue in self-employment after SEA completion?

There were no differences in usage of social assistance in the post-program period across regions. In terms of UI usage in the post-program period participants from the Atlantic were more likely to have collected unemployment insurance compared to participants from other regions. The number of weeks of UI collected and amount of benefits was consistently higher for Atlantic participants in the 12 months following program participation and in the period since completing the program. Participants from the Prairies and British Columbia report the least usage of UI in the postprogram period.

Participants who Discontinue Self-Employment

Only 17 per cent of SEA participants reported that their business was not currently operating. The bivariate results indicate that, of these, 40 per cent are working full-time, 15 per cent are employed part-time, and 11 per cent are self-employed. About one-quarter are unemployed and looking for work (a figure which is remarkably close to the incidence of unemployment in the comparison group). Of those who are working, one in five went back to the job they had before participating in SEA. Two-thirds of those working are employed in year-round jobs. Forty per cent said that the training and experience they gained in starting their own business was important in helping them to get this job. This group of participants work, on average, 42 hours per week and earn \$497 per week compared to \$542 before participation in SEA.

Segmented Models

While previous sections of this chapter have indicated the types of circumstances where SEA was found to be more successful, and the "within-client" differences this section highlights the client subgroups which seem to have benefited most from their participation in SEA. These are clients for which participation in SEA has made the greatest difference in comparison to their counterparts in the comparison group. This analysis uses a series of segmented models (i.e., econometric models which were developed specifically for sub-sets of the population, like women or youth) to predict outcome measures. Detailed results are presented in Table B.20.

Seven dependent variables were selected to represent three conceptual areas:

- **Program utilization:** number of weeks of the reference UI claim and total amount paid during the reference claim.
- **Individual benefits:** annual income after the program and effects on personal assets and debts.

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Table 16 Summary Results of the Segmented Models

Groups	UI Usage During SEA	Income and Asset Effects	UI Dependency Effects
Age	Youth are least costly	Youth only groups with positive income effects (older workers' largest drop in assets)	Youth smallest reduction in post UI effects (older workers with largest drop in post UI effects)
Gender	Women are least costly	Women have positive income effects (negative for men) but more negative asset effects	Women have positive UI effects
Geography	Shortest and least costly in Newfoundland and in the Prairies	Positive income effects in New Brunswick and Saskatchewan; worse in Nova Scotia/PEI and Ontario (where the confidence effects are best)	Best post-UI effects in Atlantic (especially in New Brunswick) and Quebec and secondarily in British Columbia
Dependence on UI before SEA	Length of claim increases with previous dependence	Effects much worse for those least and most dependent before	Best effects for those most dependent before
Social assistance	No effect	Positive effects (compared to negative for non-SAs)	Slightly better UI effects
Risk taking attitude	No effect	No effect	No effect
Settlement size	Little effect	Positive income effects and less negative asset effects for urban settings	Better reductions in rural areas

1. These findings contradict previous findings (Wong et. al., 1993) that found the earnings benefits to be slightly higher for men compared to women and higher for the older age group (45 to 65 years) compared to the younger group (25 to 44 years of age).

Table 16 summarizes the results of this segmented analysis. Notable findings include:

- Individual benefits in terms of income and assets/debts and UI dependence outcomes are often contradictory: when groups do better in one area, they often do worse in the other.
- Candidates with a higher interest in self-employment and previous self-employment experience receive higher individual benefits from the program but this does not affect post-program UI costs. Risk-taking attitude is not a good discriminant, showing no effect in terms of participants' program costs, income, assets/debts or UI use in the post-program period.

Table 16
Summary Results of the Segmented Models

Groups	UI Usage During SEA	Income and Asset Effects	UI Dependency Effects
Age	Youth are least costly	Youth: only groups with positive income effects ¹ Older workers: largest drop in assets	Youth: smallest reduction in post UI effects Older workers with largest drop in post UI effects
Gender	Women are less costly	Women have positive income effects ¹ (negative for men) but more negative asset effects	Women have Positive UI effects
Geography	Shortest and least costly in Newfoundland and in the Prairies	Positive income effects in New Brunswick and Saskatchewan; worse in Nova Scotia/PEI and Ontario (where the confidence effects are best!)	Best post-UI effects in Atlantic (especially in New Brunswick) and Quebec and secondarily in British Columbia
Dependence on UI before SEA	Length of claim increases with previous dependence	Effects much worse for those least and most dependent before	Best effects for those most dependent before
Social assistance	No effect	Positive effects (compared to negative for non-SARs)	Slightly better UI effects
Risk taking attitude	No effect	No effect	No effect
Settlement size	Little effect	Positive income effects and less negative asset effects for urban settings	Better reductions in rural areas

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- Candidates with a higher interest in self-employment and previous self-employment experience receive higher individual benefits from the program but this does not affect post-program UI costs. Risk-taking attitude is not a good discriminant, showing no effect in terms of participants' program costs, income, assets/debts or UI use in the post-program period.

- Participants from urban areas receive greater individual income and asset/debt effects as a result of program participation while participants from rural areas show more positive effects in terms of post-program dependence on UI.
- Women and youth claim less in UI benefits during the program. Youth experience greater benefits from the program than older workers in terms of income after the program and assets/debts. However, they show the smallest reduction in UI dependence relative to the comparison during the post-program period. Female participants experience greater positive earnings effects in the post-program period, however, male participants experience greater benefits in terms of assets effects and post-program UI dependence.
- Participants from New Brunswick (and, to a lesser degree, the rest of Atlantic Canada and Quebec) obtain the greatest benefit from the program compared to their comparison group counterparts, while those from Ontario receive the least benefits.
- Dependence on UI before the program is not a good discriminatory variable.
- SARs are a productive target, receiving greater program effects compared to non-SARs.

6. Alternatives

ISSUE 14

Are there more effective or more cost-effective ways of assisting SEA participants? Are there alternative methods of capitalizing SEA business ventures?

This chapter focuses on the effectiveness and efficiency of the SEA program with a view to improving program benefits within the current budget allocation or, alternatively, maintaining program benefits at a reduced cost. The alternatives presented below are based on information and views obtained from a number of sources, including the international literature and Canadian studies, the views of program participants and non-participants and those of delivery agents. While these alternatives do not constitute recommendations, they have been selected in light of their potential usefulness to solve particular weaknesses of the program identified by this study. Descriptions of potential alternatives are prefaced by a brief discussion of the program weaknesses.

A Renewed Focus on Incrementality

The objectives of the program state that its efforts should be incremental. There is strong evidence, however, of a trend to the contrary. The employment profile of SEA participants discussed earlier in this report indicates that participants have superior skills, education, job stability and financial resources compared to the comparison group. Focus groups and interviews suggested that delivery agents in urban centres, where demand can far outweigh availability of seats, engage in the "creaming" of participants at the exclusion of the structurally unemployed or employment disadvantaged. Reasons for rejecting applicants do not often include the applicant being able to proceed without the program. For these delivery agents, SEA is more of a small business and/or economic development program than a program aimed at reducing dependency on UI and welfare.

The increasing focus on business success as opposed to economic self-sufficiency for marginal workers was also noted in an earlier study of SEA conducted by the CLFDB. This study noted that the selection process was increasingly "working to the exclusion of lower wage, less well educated, and traditionally more difficult to employ clientele..."¹⁸ This focus is also the likely cause of the rise in the "deadweight" factor from an estimate of 25 per cent¹⁹ in the CLFDB study to 50 per cent in this evaluation.

Program criteria could be adjusted to ensure a greater focus on obtaining an incremental impact by limiting eligibility to UI claimants who are structurally unemployed or at significant risk of becoming so. This criterion exists in the Netherlands and Norway where self-employment assistance programs are accessible only to those who do not have the option of viable employment in their present circumstances.

In order not to penalize those who are eligible for UI and who wish to pursue self-employment, but are not structurally unemployed, the Act could be amended to allow those who satisfy a CEC concerning their suitability for pursuing self-employment to collect UI benefits. This alternative

¹⁸ *The self-Employment Assistance (SEA) Study Report*. Report to the Canadian Labour Force Development Board of the Self-Employment Assistance (SEA) Program Study Team. p.8.

¹⁹ *Ibid.*, p. 11.

is also in keeping with the above noted CLFDB report which advocates viewing an attempt at self-employment by UI recipients as "job search".

A less dramatic alternative would involve a clarification of program objectives and efforts to help delivery agents better understand the types of participants for which the program produces incremental benefits.

Communications on a Level Playing Field

Most program participants learned about the existence of SEA through their CEC or network of contacts. Minimal program advertising (due to high demand for SEA) has thus had a disproportionately negative effect on designated groups, particularly those who are not eligible for UI benefits. Many non-participants who attended the focus groups felt that the communications element of the program lacked fairness.

- Communications about the program could be more formalized to insure that all who might benefit from it are made aware of its existence. For example, provincial officials who work with social assistance recipients could receive up-dated information about the program. Also, information about the program could be provided to CEC clients in a more systematic fashion.

Stronger Linkage with Established Businesses

Certain aspects of training were criticised by program participants. In the focus groups, some criticized training for not being relevant enough to their business. It was felt that this was due mainly to the fact that training was too often provided by people who did not possess small business experience. The importance of allowing SEA participants to have contact with experienced entrepreneurs was also stressed by SEA participants in smaller centres. They spoke of the isolation of being self-employed (especially when working out of home) and the relief which came from discussing problems with others who have lived through similar experiences. Those in larger centres who had opportunities to meet with other entrepreneurs, including other SEA participants, described these as both encouraging and instructive.

- Improvement could result from a strengthening of the link among SEA participants and between SEA participants and existing business through training and formalized networking possibilities, especially in rural areas. Implementation of this alternative might also encourage more participants to take training.

More Training and More Flexible Training

The survey findings and a review of the literature revealed a positive correlation between training and business success. Yet, training is inconsistent across delivery agents/BDCs, with some participants perhaps receiving no training. The situation is particularly problematic in smaller communities where distance, isolation and the relatively small number of program participants make it difficult to coordinate formal training.

- Increasing the interest and access to business training among participants could be achieved by increasing the profile of training and highlighting its direct link with business success. Other alternatives include establishing home study and distance learning programs.

Attracting SARs and Members of Other Designated Groups

SARs and members of other designated groups have very low participation rates in the program. There was strong agreement among delivery agents that program benefits are not high enough to attract SAR clients to the program or for SARs to survive while getting their business off of the

ground. This is exacerbated by policies which dictate that revenues generated from business profits, over a certain amount, must be deducted from social assistance benefits. Lack of equity and ability to secure financing were considered another barrier to SAR and designated group participation in the program. Finally, SAR participants were less satisfied with the program compared to the other participants.

- Providing flat rate benefits for SARs (e.g., a return to the old SEI rate) could make the program more attractive to SARs. A quota system could also be instituted to insure a minimum level of participation on the part of designated groups.
- Conversely, HRDC may want to exclude SARs from the program in light of provincial self-employment initiatives aimed at this segment.

Facilitating Capitalization

One of the largest barriers to becoming self-employed, according to both SEA participants and non-participants, centres around obtaining sufficient start-up capital. This is particularly the case with SAR participants who have difficulty obtaining financing from banks. The survey findings also revealed that participants who invested larger amounts in their business were significantly more likely to succeed.

- Including a lump sum payment option which would allow participants to capitalize a proportion of their funding could benefit those who might otherwise be under-capitalized, as well as broaden the base of potential program participants, including members of designated groups.
- Improving collaboration between HRDC and the provincial ministries responsible for small business development, loan funds, and job creation programs could help remove obstacles preventing SEA participants from accessing capital or other assistance provided by provincial programs.

Enhanced Flexibility

Delivery agents expressed a desire to have more freedom to tailor the program to the specific needs of participants. The following represent possible alternatives which could add a measure of flexibility to the program.

- The amount of the subsidy could vary depending on the type of business established. In Greece, for example, manufacturing enterprises receive a larger subsidy than business ventures in the trade and services sector.²⁰
- As in the Netherlands, the amount of the subsidy could be linked to business income, thus successful business ventures would be weaned off of the program at a faster rate by receiving a decreasing stipend payment in proportion to increasing profits.²¹
- Some delivery agents suggested that the number of weeks that benefits are paid out should not be fixed at 52. Rather, they wanted the flexibility to provide additional income support to businesses which they deem to require more than 52 weeks of subsidy in order to become self-sufficient. Conversely, participants whose businesses are judged by delivery agents to require a shorter period of subsidy would receive less than the current 52 weeks.

²⁰ U.S. Department of Labour, *Self-employed Programs for Unemployed Workers*, 1992, p. 250.

²¹ *Ibid.*, p. 251

- Many delivery agents, especially in smaller locations, indicated a strong preference for yearly budgets as opposed to monthly or quarterly allocations of SEA funding. This alternative could permit them to plan more effectively and remove the *de facto* quota system which results, in favour of a better matching of demand for the program with available seats.
- As in the French *Chomeurs Créateurs* program, increasing the allowance amount for every job directly created by a program participant could serve as an incentive for job creation.

Fees for Delivery Agents

In some Canadian delivery areas, particularly urban centres, the SEA program is administered and delivered by external contractors. While these vendors in Canada and elsewhere (e.g., the United States) are compensated based on a flat fee, a results-based fee schedule is another alternative. A results-based fee would require delivery agents' payment to be linked to program success. On the one hand, results-based payment may boost program success through improved monitoring and training of participants by delivery agents. The department would also reduce the overall administrative and service costs of the program by linking these payments to program success. On the other hand, a results-based fee may push the program toward "efficiency" and away from "equity" as delivery agents will be encouraged to select those candidates most likely to succeed.

7. Conclusions

An effective government initiative which allows unemployed workers to become economically self-sufficient would provide welcome relief on both social and economic fronts.

This study has provided a detailed analysis of many facets of the SEA program's operations and performance. In this chapter, we step back to synthesize and consider the evidence as it pertains to the crucial questions of this evaluation: does the program make sense? is it reaching the intended clientele? is it structured and organized in a way which maximizes the potential for program success? and does it generate the impacts and effects which were intended? Each of these questions is reviewed in turn below.

In reading the following conclusions, one should bear in mind that this evaluation was carried out only two years after the program's inception. Program performance, therefore, is observed on average eight months after participants completed the program and sometimes as little as three months after completion. In time, a more definitive assessment of the program will be possible.

Rationale

Canadians and governments continue to grapple with historically high levels of unemployment and the resulting heavy charges to the UI account, as well as the prospect of a "jobless" economic recovery. An effective government initiative which allows unemployed workers to become economically self-sufficient would provide welcome relief on both social and economic fronts.

The international experience reviewed in this evaluation study suggests that self-employment assistance programs have some positive benefits. Preliminary work by European and American researchers suggest encouraging results and raise few concerns beyond possible displacement effects. The challenge for this study is to determine whether the implementation of the self-employment assistance concept is effective in the Canadian context. This evaluation provides preliminary answers to this question.

Beyond social and economic justifications, SEA must first demonstrate that it can attract a sufficiently large pool of unemployed workers. This evaluation establishes that SEA clients currently represent about one per cent of the overall pool of unemployed workers (who reside in designated areas). This is in sharp contrast with the figure of four to five per cent quoted in the European literature. This low take-up might be explained by the relatively low level of funding of the program rather than by lagging demand. Indeed, at least 25 per cent (and maybe as many as 40 per cent) of all unemployed workers (residing in designated areas) express interest in self-employment. Thus, there is sufficient demand to justify the SEA approach.

Conflict Between Objectives

The SEA program's process to screen potential participants is well developed. It remains unclear, however, which criteria should take precedence in the selection process. Should the program focus its attention on the unemployed workers presenting the best likelihood of business success or rather, should it emphasize assistance to the structurally unemployed and/or equity groups? Rural areas and areas where demand for the program is lighter tend to address the second, social objective, while in urban areas and areas where the program is in high demand, the program is more likely to be seen as a small business or economic development program.

The tension between the social and business success objectives is also visible in the performance of the program for various subgroups. It was found that personal benefits accrue more to youth, women, SARs, urban area residents, those with previous self-employment experience and those with the keenest interest in self-employment. However, it was also observed that the largest social (UI) effects were among older workers, men, those with a history of dependence on UI, and those in rural areas. Clearly, the emphasis on one objective (at the detriment of the other) will determine very different targets of action.

It appears that in some instances where there is a preference for the economic objectives of the program, this translates into a client base which over-represents males, individuals with better education, candidates with more financial resources and those who used to work in more complex jobs. It is possible that this application of the program contributes, to some extent, to low take-up by social assistance recipients.

The focus on business success is also apparent in the reasons given for refusing applicants access to the program. More often than not, poor potential for business success and related variables (such as availability of capital) are the stated reasons for rejections. Ability to sustain self-employment without SEA is only rarely given as a cause for rejection, even though it is one of the stated guidelines.

Based on the qualitative and quantitative evidence, it appears that there are variations across regions in demand for the program. The survey of the comparison group indicated that interest in self-employment was highest in British Columbia, Alberta and Quebec. Qualitative interviews with BDCs and delivery agents confirmed that the relationship between program demand and resources was different for various offices. As well, the priority assigned to the program by regions and local CECs was uneven. Finally, while there is a segment of the workforce which considers self-employment a practical alternative to paid employment or which sees self-employment as the preferred alternative, overall, interest in self-employment is relatively low.

Short-term business survival is excellent. Some 83 per cent of SEA clients were still operating their SEA venture at the time of their evaluation interview.

Process

According to program clients, the program process is adequate. We have found that one third of program clients claim not to have received training but it is unclear whether this reflects reality or whether it is a question of perception as to what constitutes training (e.g., little formal training is offered in rural areas because of limited numbers of participants). The importance of solid training has been highlighted by the fact that training outside the program was found to be a significant contributor to business success.

Clients expressed average levels of satisfaction with the training offered, but were more satisfied with the information they received about the program, the financial assistance and the application process. Participants were most critical of the lack of on-going assistance offered by the delivery agents.

Social assistance recipients were more critical of the program than UI clients. They experienced stronger financial barriers and they may require more support to successfully launch their business.

Impacts and Effects

It is worth reiterating that the results presented here are based on a very short period of program activity and a very short period of business activity following program cessation - between three and 18 months after completion of the program, averaging at eight months. As a result, caution must be used when considering the conclusions.

Perhaps the most notable result of this evaluation is the estimation of the "dead weight" factor (or the proportion of program participants who would have started their business even without the assistance of the program). Using self-assessment by the program participants, as well as the data from the rejected applicants, we estimate that the program had no incremental impact on about 50 per cent of program participants. This is a high figure. The international literature offers some evidence in this regard; in England, figures of 50 to 68 per cent were cited. Of course, the estimations of SEA impacts which follow have to take the 50 per cent dead weight figure into account.

Short-term business survival is excellent. Some 83 per cent of SEA clients were still operating their SEA venture at the time of their evaluation interview (between three and 18 months after completing the program) which is comparable to estimates reported in the international literature. Of course, this figure can only decrease with time. Even though SEA focuses on its economic (rather than its social) objective, there is still a seven percentage point difference in survival rate between SEA participants and the comparison group that started their own business (at the disadvantage of SEA). The survival rate of businesses started by rejected applicants is the same as that of SEA clients.

Local economies appear to benefit from spin-off generated by SEA businesses.

The economic impacts on participants in the short-term following program completion are generally positive. Our estimates indicate that SEA participants were positively affected in terms of their earnings following the program. Program participants experienced an increase in earnings between the pre- and post-program period and earn significantly more than members of the comparison group. However, new business owners had to work several more hours per week (up to 14) to operate their business compared to their previous employment. Also, SEA participants invested some \$17,000 on average in their business, an amount which would have been available for other investments had they not pursued self-employment. Overall, SEA participants enjoy a very positive economic rate of return on their original investment. The original investment and longer working hours are balanced against certain non-monetary advantages. SEA clients were generally more satisfied with life and more confident in their abilities in the labour market than those in the comparison group (although not by a very wide margin).

SEA participants' level of personal indebtedness seems to have been negatively affected by their business start. Their personal net worth situation significantly worsened over the program period, particularly compared to the comparison group (for whom the situation improved). This conclusion is drawn without regard to the business assets and debts since our measures of these are fragmentary. The negative debt situation might partially explain the finding that 17 per cent of program participants who still operate their SEA business also have a paid job; where they work an average of 32 hours per week. In their case, the SEA business has become more of a sideline.

The program impacts on government expenditures are mixed. SEA participants are less likely than those in the comparison group to use social assistance (a difference of four percentage points is the econometric models). After the program, they also draw \$2,632 less from the UI account (an average of eight months after completing the program), but this does not yet outweigh the

substantial \$13,000 of additional UI resources which were invested in their SEA participation. It is not yet possible to determine what the long-term impact of the program will be on the UI account, but by projecting the post-program effect into the future, it can be concluded that the SEA UI fund investment would be paid back in 3 years and 9 months. A more complete social rate of return indicates that society breaks even as soon as 18 months after the end of program participation.

Local economies appear to benefit from spin-off generated by SEA businesses. Over one year, SEA participants would have created about \$300 million in local economic benefits while creating a net draw of \$112 million on the UI account. Also, each SEA client has created approximately 5.6 person months of part-time or full-time employment, which may be reduced to about two to three months after accounting for the dead weight.

What is perhaps most interesting is that the predictors of secondary job creation are the same as the predictors of business success. They are: having previous managerial responsibilities, taking small business training outside the program and injecting larger amounts of personal equity into the venture. These findings once again highlight the tension between the economic development/business success objective of the program and the social/employment disadvantage assistance objective. If applied rigorously in the selection process, these predictors would push the program further away from the social objective.

Finally, although the evidence here is highly qualitative, we observed no evidence of employment displacement. However, no hard evidence of such an adverse effect was available to the evaluation.

Overall Conclusions

Clearly, SEA provides benefits which correspond to the program rationale and to the expectations of program clients. It eases the way into self-employment for its clients and appears to generate positive economic and societal impacts. In the year following program participation, participants are unlikely to use the UI program again and they derive positive feelings from their new employment situation.

However, the picture is not entirely positive. The UI cost of the program is high and our estimates are that it will take more than three years to recuperate this public investment in a narrow UI accounting perspective. An important concern is that about half of the clients are subsidized to start a business they would have started anyway. Applying this dead weight to the estimate above would increase the UI investment recuperation period to more than six years. The incidence and extent of concurrent paid employment by program participants indicate that, for some, the new business cannot sustain their needs and has become more of a sideline.

It is important to note that participants had less of a need than the comparison group to follow the self-employment route. Their work history was better and their professional tooling was superior. Yet, they chose to gamble their income, to increase their working hours and to invest significant personal resources in their new business. The results they have experienced in the first year after the program are increased income, self-fulfilment and a sense of control over their life. It is possible that they consider this period as a long-term investment which cannot be captured in the short-term. It is also possible that many of these businesses will not survive the test of time and that the personal investments will lose all value.

Globally, the program delivered what was expected of it, using the one-year lens that is available to us. Its main benefits are to assist individuals in achieving an employment opportunity which raises their spirits while moving them away from reliance on the UI system. It also generates a positive rate of return to society within a reasonable length of time. It is therefore a good program for a narrow band of population who can pursue self-employment.

Appendix A: Profile of Users and Activities: Tables

Table A.1
SEA Participants: Program Take-up and Satisfaction

How first heard about SEA

Word of mouth	41
CEC counsellor	26
Other government program	15
Advertisement	14
Brochure	2
Bank	1

Table A.2
SEA Participants: Program and Non-Program Activities

SEA Activities

Participated in training	71%
Average total hours of training	42
Types of training	
Bookkeeping/Accounting	74
Marketing	65
Management	56
Financing/financial planning	52
Advertising/Promotion	47
Time management	37
Computer skills	15
Legal issues/insurance	28

Non-program Activities

Participated in Training (not sponsored by SEA)	32
Participate in training related to starting own business (of those who took training)	78
Participated in counselling	14
Consulted others	63

Who consulted

Family/friends	38
Business/network	36
Accountant	27
Mentor/business colleague	25
Provincial program	13
Lawyer	13
Other federal gov't program	11
Bank	12

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Table A.3
SEA Participants' Program Satisfaction

	% Very Satisfied ¹
Overall program	88
Information received about the program	76
Financial assistance	75
Application process	73
Training session	85
Orientation session	85
Support and assistance in operating business	84

¹ Responded 5, 6 or 7 on a 7-point scale.

Table A.4
Kind of Self-Employment

	SEA Participants	SEA Comparison Group
Other Service	26	16
Retail Trade	19	13
Construction	8	17
Business Services	8	8
Other manufacturing	7	9
Accommodation/food	6	6
Health and social services	4	2
Agricultural and related	4	2
Logging and forestry	2	6
Wood/furniture	3	2
Transportation/and storage	2	5
Communication and other	3	2
Steel/metal products	2	1
Wholesale trade	2	0
Educational service	2	1
Fishing and trapping	0	4
Mining, quarrying	1	2
Finance and insurance	2	0
Leather/textile	2	0

Appendix B: Impacts and Effects: Table

Table B.1
Description of Dependent Variables

Variable Name	Description	Unit of Measurement	Source
A_PUI12	Percentage of weeks received UI 12 months after reference claim	Continuous	HRD's SV file
A_TAWK12	Number of weeks received UI 12 months after reference claim	Weeks	HRD's SV file
A_TBEN12	Amount of UI received 12 months after reference claim	Dollars	HRD's SV file
BUS_PRO2	Monthly business profit: sales minus all expenses	Dollars	SEA survey file
C_N3	Ever collected welfare after reference week	1=Yes 0=No	SEA survey file
CHANASSE	Change in financial situation: current net assets (assets minus debts) minus net assets prior to program	Dollars	SEA survey file
CHANHOUR	Change in hours of work: difference in the hours of work in jobs after and before program	Hours	SEA survey file
F_PAWKUI	Number of weeks received UI after reference claim until June 1994	Dollars	HRD's SV file
F_PTBNUI	Amount of UI received after reference claim until June 1994	Dollars	HRD's SV file
FIN_CH1	Change in weekly earnings: difference of total weekly earnings after and weekly earnings before	Dollars	SEA survey file
FIN_EARN	Total weekly earnings: including employment earnings and business profit	Dollars	SEA survey file
FIN_PROF	Monthly self employment earnings: earnings paid to themselves and business profit	Dollars	SEA survey file
FIN_PER	Self-employment earnings	Dollars	SEA survey file
FIN_RATE	Rate of return: self employment earnings divided by amounts equity invested	Continuous	SEA survey file

Table A.3
SEA Participants: Program Satisfaction

	% Very Satisfied ¹
Overall program	89
Information received about the program	76
Financial assistance	73
Application process	73
Training session	55
Orientation session	63
Support and assistance in operating business	64

¹ Responded 5, 6 or 7 on a 7-point scale.

Table A.4
Kind of Self Employment

	SEA Participants	SEA Comparison Group
Other Service	26	16
Retail Trade	15	13
Construction	8	17
Business Services	8	6
Other manufacturing	7	9
Accommodation/food	6	6
Health and social services	4	2
Agricultural and related	4	2
Logging and forestry	2	6
Wood/furniture	3	3
Transportation and storage	2	5
Communication and other	3	2
Steel/metal products	2	1
Wholesale trade	2	4
Educational service	2	1
Fishing and trapping	0	4
Mining, quarrying	1	2
Finance and insurance	2	0
Leather/textile	2	0

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CHANASSE	Change in financial situation: current net assets (assets minus debts) minus net assets prior to program	Dollars	SEA survey file
CHANHOUR	Change in hours of work: difference in the hours of work in jobs after and before program	Hours	SEA survey file
F_PAWKUI	Number of weeks received UI after reference claim until June 1994	Dollars	HRD's SV file
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FIN_PER	Self-employment earnings	Dollars	SEA survey file
FIN_RATE	Rate of return: self employment earnings divided by amounts equity invested	Continuous	SEA survey file

Table B.1
Description of Dependent Variables (con't)

Variable Name	Description	Unit of Measurement	Source
I2_EMP	Current employment status	1=Employed 0=All other	SEA survey file
JOB_FULL	Number of full-time jobs created	Continuous	SEA survey file
JOB_PART	Number of part-time jobs created	Continuous	SEA survey file
I3	Number of weeks not working since program	Weeks	SEA survey file
MARK_ENH	Rated confidence in labour market 1) Respondents have more marketable work skill now than three years ago 2) A year from now respondents expect to be working 3) Respondents would have no problem picking up a job 4) Respondents have more self-confidence than most other people	1-7 point scale	SEA survey file
PAYMT2	Number of paid employment months created	Months	SEA survey file
PER_PUI	Percentage of weeks received UI after reference claim until June 1994	Continuous	HRD's SV file
POS_UI12	Ever received UI 12 months after reference claim	1=Yes 0=No	HRD's SV file
POST_UI	Ever received UI after reference claim until June 1994	1=Yes 0=No	HRD's SV file
R_TAWK	Number of weeks received UI during the reference claim	Weeks	HRD's SV file
R_TBEN1	Amount of UI received during the reference claim	Dollars	HRD's SV file
rPERS	Annual personal income	Dollars	SEA survey file
rQ2B	Business survival rate: whether business is still operating	1=Yes 0=No	SEA survey file
RQ3H	Monthly-sales	Dollars	SEA survey file
SAT_LIFE	Rated satisfaction with life: it includes the mean of the following four seven-point ratings on satisfaction with aspects of life: 1) Overall quality 2) Degree of control 3) Overall financial security 4) Business or job skills	1-7 point scale	SEA survey file
TOT_HOUR	Hours of work current job	Hours	SEA survey file

Table B.2
Description of Independent Variables

Variable Name	Description	Unit of Measurement	Source
A4_EARN	Employment earnings: four years prior to reference week	Dollars	SEA survey file
AGE	Age	Years	SEA survey file
ATT25	Willingness to take risks	1-7 point scale	SEA survey file
E6A	Interest in self employment	1-7 point scale	SEA survey file
EDUC_HG	High school graduates	1=Yes 0=No	SEA survey file
EDUC_LH	Less than high school education	1=Yes 0=No	SEA survey file
EDUC_SP	Some post secondary education	1=Yes 0=No	SEA survey file
EMPWK24	Number of weeks employed 24 months prior to the reference week	Weeks	SEA survey file
HINEARN	Insurable earning	Dollars	SEA survey file
HINSWKS	Insurable weeks	Weeks	HRD's admin. file
IND_CONS	Industry before: construction	1=Yes 0=No	SEA survey file
P_TBEN	Amount of UI received: four years prior the reference week	Dollars	HRD's admin. file
P_TAWK	Number of week received UI: four years prior to reference week	Weeks	SEA survey file
IND_MANU	Industry before: manufacturing	1=Yes 0=No	SEA survey file
IND_MISS	Industry before: missing information	1=Yes 0=No	SEA survey file
IND_OTHS	Industry before: other industries	1=Yes 0=No	SEA survey file
IND_PUBL	Industry before: public sector	1=Yes 0=No	SEA survey file
IND_SALE	Industry before: sales	1=Yes 0=No	SEA survey file
IND_TRAN	Industry before: transportation	1=Yes 0=No	SEA survey file

(Table continued)

Table B.1
Description of Dependent Variables (con't)

Variable Name	Description	Unit of Measurement	Source
I2_EMP	Current employment status	1=Employed 0=All other	SEA survey file
JOB_FULL	Number of full-time jobs created	Continuous	SEA survey file
JOB_PART	Number of part-time jobs created	Continuous	SEA survey file
L3	Number of weeks not working since program	Weeks	SEA survey file
MARK_ENH	Rated confidence in labour market 1) Respondents have more marketable work skill now than three years ago 2) A year from now respondents expect to be working 3) Respondents would have no problem picking up a job 4) Respondents have more self-confidence than most other people	1-7 point scale	SEA survey file
PAYMT2	Number of paid employment months created	Months	SEA survey file
PER_PUI	Percentage of weeks received UI after reference claim until June 1994	Continuous	HRD's SV file
POS_UI12	Ever received UI 12 months after reference claim	1=Yes 0=No	HRD's SV file
POST_UI	Ever received UI after reference claim until June 1994	1=Yes 0=No	HRD's SV file
R_TAWK	Number of weeks received UI during the reference claim	Weeks	HRD's SV file
R_TBEN1	Amount of UI received during the reference claim	Dollars	HRD's SV file
rPERS	Annual personal income	Dollars	SEA survey file
rQ2B	Business survival rate: whether business is still operating	1=Yes 0=No	SEA survey file
RQ3H	Monthly sales	Dollars	SEA survey file
SAT_LIFE	Rated satisfaction with life. It includes the mean of the following four seven-point ratings on satisfaction with aspects of life: 1) Overall quality 2) Degree of control 3) Overall financial security 4) Business or job skills	1-7 point scale	SEA survey file
TOT_HOUR	Hours of work current job	Hours	SEA survey file

Table B.2
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Variable Name	Description	Unit of Measurement	Source
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EDUC_SP	Some post secondary education	1=Yes 0=No	SEA survey file
EMPWK24	Number of weeks employed 24 months prior to the reference week	Weeks	SEA survey file
HINEARN	Insurable earning	Dollars	SEA survey file
HINSWKS	Insurable weeks	Weeks	HRD's admin. file
IND_CONS	Industry before: construction	1=Yes 0=No	SEA survey file
P_TBEN	Amount of UI received: four years prior the reference week	Dollars	HRD's admin. file
P_TAWK	Number of week received UI: four years prior to reference week	Weeks	SEA survey file
IND_MANU	Industry before: manufacturing	1=Yes 0=No	SEA survey file
IND_MISS	Industry before: missing information	1=Yes 0=No	SEA survey file
IND_OTHS	Industry before: other industries	1=Yes 0=No	SEA survey file
IND_PUBL	Industry before: public sector	1=Yes 0=No	SEA survey file
IND_SALE	Industry before: sales	1=Yes 0=No	SEA survey file
IND_TRAN	Industry before: transportation	1=Yes 0=No	SEA survey file

(Table continued)

Table B.2
Description of Independent Variables (con't)

Variable Name	Description	Unit of Measurement	Source
LAMBDA2	Self-selection correction factor included: weeks received UI, amount of UI received, employment earnings in the four years prior to reference week, and willingness to take risks	Continuous	SEA survey and HRD's SV files
LANG_FRE	Language: French	1=Yes 0=No	SEA survey file
MALE	Gender	1=Male 0=Female	SEA survey file
OWN_BUSI	Whether parents owned a business	1=Yes 0=No	SEA survey file
PRO_ATLA	Resided in Atlantic provinces	1=Yes 0=No	HRD's admin. files
PRO_BC	Resided in British Columbia	1=Yes 0=No	HRD's admin. files
PRO_PRA	Resided in Prairie provinces	1=Yes 0=No	HRD's admin. files
PRO_QUE	Resided in Quebec	1=Yes 0=No	HRD's admin. files
rA21	Whether respondent had managerial or supervisory experience	1=Yes 0=No	SEA survey file
rFA13	Hours of work in previous job	Hours	SEA survey file
LANG_OTH	Language: Not English or French	1=Yes 0=No	SEA survey file
LO_BANK	Whether received loan from bank	1=Yes 0=No	SEA survey file
LO_BUSD	Whether received loan from business development center	1=Yes 0=No	SEA survey file
LO_GOVE	Whether received loan from government	1=Yes 0=No	SEA survey file
LO_SELF	Whether received loan from family or friends	1=Yes 0=No	SEA survey file
rFA14	Weekly earnings in previous job	Dollars	SEA survey file
rGROUP	Indicator of SEA or comparison group	1=SEA 0=Comparison	SEA survey file
rQ3G1	Amount of equity investment in the business	Dollars	SEA survey file

(Table continued)

Table B 2
Description of Independent Variables (cont'd)

Variable Name	Description	Unit of Measurement	Source
rTR1	Whether received any training or counseling	1-Yes 0-No	SEA Survey file
S_UI_WEEK	Week started business in USC episode	Continuous	SEA Survey file
sIND_CON	Industry currently: construction	1-Yes 0-No	SEA Survey file
sIND_MAN	Industry currently: manufacturing	1-Yes 0-No	SEA Survey file
sIND_MIS	Industry currently: missing information	1-Yes 0-No	SEA Survey file
sIND_OTH	Industry currently: other industries	1-Yes 0-No	SEA Survey file
sIND_PUB	Industry currently: public sector	1-Yes 0-No	SEA Survey file
sIND_SAL	Industry currently: sales	1-Yes 0-No	SEA Survey file
sIND_TRA	Industry currently: transportation	1-Yes 0-No	SEA Survey file
SPOU_EMP	Married and spouse is employed	1-Yes 0-No	SEA Survey file
SPOU_NLF	Married and spouse is not in labor force	1-Yes 0-No	SEA Survey file
SPOU_UNE	Married and spouse is unemployed	1-Yes 0-No	SEA Survey file
WEEK_A12	Number of weeks available, 12 months after the end of the reference claim	Weeks	SEA Survey file
WEEK_AVA	Weeks available: number of weeks between end of reference claim to week of interview	Weeks	SEA Survey file

Table B.2
Description of Independent Variables (con't)

Variable Name	Description	Unit of Measurement	Source
LAMBDA2	Self-selection correction factor included: weeks received UI, amount of UI received, employment earnings in the four years prior to reference week, and willingness to take risks	Continuous	SEA survey and HRD's SV files
LANG_FRE	Language: French	1=Yes 0=No	SEA survey file
MALE	Gender	1=Male 0=Female	SEA survey file
OWN_BUSI	Whether parents owned a business	1=Yes 0=No	SEA survey file
PRO_ATLA	Resided in Atlantic provinces	1=Yes 0=No	HRD's admin. files
PRO_BC	Resided in British Columbia	1=Yes 0=No	HRD's admin. files
PRO_PRA	Resided in Prairie provinces	1=Yes 0=No	HRD's admin. files
PRO_QUE	Resided in Quebec	1=Yes 0=No	HRD's admin. files
rA21	Whether respondent had managerial or supervisory experience	1=Yes 0=No	SEA survey file
rFA13	Hours of work in previous job	Hours	SEA survey file
LANG_OTH	Language: Not English or French	1=Yes 0=No	SEA survey file
LO_BANK	Whether received loan from bank	1=Yes 0=No	SEA survey file
LO_BUSD	Whether received loan from business development center	1=Yes 0=No	SEA survey file
LO_GOVE	Whether received loan from government	1=Yes 0=No	SEA survey file
LO_SELF	Whether received loan from family or friends	1=Yes 0=No	SEA survey file
rFA14	Weekly earnings in previous job	Dollars	SEA survey file
rGROUP	Indicator of SEA or comparison group	1=SEA 0=Comparison	SEA survey file
rQ3G1	Amount of equity investment in the business	Dollars	SEA survey file

(Table continued)

Table B.2
Description of Independent Variables (con't)

Variable Name	Description	Unit of Measurement	Source
rTR1	Whether received any training or counselling	1=Yes 0=No	SEA survey file
S_UI WEEK	Week started business in UIC code	Continuous	SEA survey file
sIND_CON	Industry currently: construction	1=Yes 0=No	SEA survey file
sIND_MAN	Industry currently: manufacturing	1=Yes 0=No	SEA survey file
sIND_MIS	Industry currently: missing information	1=Yes 0=No	SEA survey file
sIND_OTH	Industry currently: other industries	1=Yes 0=No	SEA survey file
sIND_PUB	Industry currently: public sector	1=Yes 0=No	SEA survey file
sIND_SAL	Industry currently: sales	1=Yes 0=No	SEA survey file
sIND_TRA	Industry currently: transportation	1=Yes 0=No	SEA survey file
SPOU_EMP	Married and spouse is employed	1=Yes 0=No	SEA survey file
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WEEK_AVA	Weeks available: number of weeks between end of reference claim to week of interview	Weeks	SEA survey file

Table B.3
Current Employment Status

	Chi-Square	df	Significance
-2 Log Likelihood	2066.522	2000	.000
Model Chi-Square	6.988	6	.000
Improvement	3.619	1	.004
Goodness of Fit	2011.582	1999	.000

Variable	B	S.E.	Wald	df	Sig.	R	Exp(B)
Married and spouse is employed	0.540	0.1917	26.266	1	.0	0.8061	1.7134
Married and spouse is not in labour force	0.468	0.1776	7.2647	1	.0066	0.9466	1.6818
Male	0.4086	0.1917	18.1616	1	.0	0.8782	1.9427
Age	-0.0257	0.0040	22.624	1	.0	-0.0006	0.9796
Industry: Manufacture	0.2627	0.10	6.3488	1	.0088	0.5945	1.4479
Number of weeks employed, 24 months prior to the reference week	0.0111	0.008	20.4415	1	.0	0.0002	1.0112
Employment earning: four years prior reference week	1.140E-06	1.140E-06	0.2647	1	0.6117	0.0001	1
Whether parents own a business	0.2075	0.0968	7.1886	1	.0073	0.9435	1.2607
Indicator of SEA group	1.5887	0.1267	168.3768	1	.0	0.2382	4.8884
Constant	0.7981	0.1968	12.6886	1	0.0002		

Table B.4
Ever Collect Welfare After Reference Week

	Chi-Square	df	Significance
-2 Log Likelihood	1362.9472	2901	1.000
Model Chi-Square	2.074	1	.1556
Improvement	2.074	1	.1499
Goodness of Fit	2998.347	2900	.000

Variable	B	S.E.	Wald	df	Sig.	R	Exp(B)
Less than high school education	0.7198	0.1987	13.0605	1	0.0002	0.0008	2.0448
High School graduate	0.2083	0.1988	0.1128	1	0.7344	0.987	1.008
Married and spouse is employed	-1.2768	0.1734	32.4248	1	.0	-0.2167	0.2641
Age	-0.0172	0.0023	4.4223	1	0.0033	-0.0023	0.9828
Industry: Sale	0.9427	0.2189	0.1704	1	0.676	0.0004	1.726
Industry: other industries	0.2947	0.1837	4.1119	1	0.0007	0.0421	1.4982
Number of weeks employed, 24 months prior to the reference week	-0.0277	0.0021	0.0023	1	0.9106	-0.0008	0.9822
Employment earning: four years prior reference week	-3.7E-06	3.98E-06	18.912	1	.0	-0.0007	1
Self-selection correction factor	-0.0436	0.0243	7.9213	1	0.0077	-0.0012	0.9582
Indicator of SEA group	-0.482	0.1823	0.2044	1	0.6188	-0.0079	0.6114
Constant	-0.3821	0.5222	0.1488	1	0.7087		

Methodological Note

The estimated logit coefficients show the relationship between the log of odds of an event and our designated explanatory variables. However, it is always easier to think of probability, rather than the log of odds. To facilitate the interpretation of our logit models, we also transform the coefficients into the rates of change in probability associated with one unit change in the explanatory variables.

The discrete change in the probability, P_i , as a result of one unit increase in the dummy explanatory variables, x_i (i.e., $x_i = 1$) can be calculated as

$$\Delta P_i = \left[\frac{1}{1 + e^{-(b_0 + x_1 b_1 + x_2 b_2 + \dots + x_k b_k) - b_i \Delta x_i}} \right] - P$$

where $\Delta x_i = 1$

k is the number of explanatory variables

P is an assumed probability that implies a corresponding value of $b_0 + x_1 b_1 + x_2 b_2 + \dots + x_k b_k$.

Substitution the log of odds, $\ln(P/(1-P))$, for the expression of $b_0 + x_1 b_1 + x_2 b_2 + \dots + x_k b_k$, the change in probability equation can be rewritten as

$$\Delta P_i = \left[\frac{1}{1 + e^{\left(-\ln \frac{P}{1-P} - b_i \right)}} \right] - P$$

Thus, ΔP_i can be computed directly from the estimated logit coefficients, b_i , and the assumed value of P .

In our three logit regression analyses, we evaluate the change in probabilities of currently employment status, ever collect welfare after, and the survival rate of business at our survey sample's average employment rate ($P=0.744$), welfare collecting rate ($P=0.078$) and survival rate of business ($P=0.84$) respectively.

Table B.3
Current Employment Status

	Chi-Square	df	Significance				
-2 Log Likelihood	2860.522	2920	.0000				
Model Chi-Square	-5.496	6	.4820				
Improvement	-3.419	1	.0644				
Goodness of Fit	3011.582	2920	.0000				
Variable	B	S.E.	Wald	df	Sig.	R	Exp(B)
Married and spouse is employed	0.542	0.1017	28.3869	1	0	0.0961	1.7194
Married and spouse is not in labour force	0.4836	0.1716	7.9367	1	0.0048	0.0458	1.6219
Male	0.4335	0.1017	18.1618	1	0	0.0752	1.5427
Age	-0.0237	0.0049	22.924	1	0	-0.0958	0.9766
Industry: Manufacture	0.3697	0.16	5.3408	1	0.0208	0.0342	1.4473
Number of weeks employed, 24 months prior to the reference week	0.0111	0.002	30.4415	1	0	0.0998	1.0112
Employment earning, four years prior reference week	2.88E-06	1.14E-06	6.3547	1	0.0117	0.0391	1
Whether parents own a business	0.2675	0.0998	7.1908	1	0.0073	0.0426	1.3067
Indicator of SEA group	1.5687	0.1267	153.3188	1	0	0.2302	4.8004
Constant	0.7061	0.1968	12.8966	1	0.0003		

Table B.4
Ever Collect Welfare After Reference Week

	Chi-Square	df	Significance				
-2 Log Likelihood	1362.5472	2931	1.000				
Model Chi-Square	-2.074	1	.1498				
Improvement	-2.074	1	.1498				
Goodness of Fit	2889.347	2931	.0000				
Variable	B	S.E.	Wald	df	Sig.	R	Exp(B)
Less than high school education	0.7158	0.1937	13.8585	1	0.0002	0.0926	2.0499
High School graduate	0.5283	0.1855	8.1128	1	0.0044	0.067	1.696
Married and spouse is employed	-1.3702	0.1734	62.4243	1	0	-0.2187	0.2541
Age	-0.0172	0.0082	4.4323	1	0.0353	-0.0423	0.9829
Industry: Sale	0.5427	0.2185	8.1704	1	0.013	0.0554	1.720
Industry: other industries	0.3947	0.1831	4.4119	1	0.0357	0.0421	1.4892
Number of weeks employed, 24 months prior to the reference week	-0.0077	0.0031	6.0623	1	0.0138	-0.0546	0.9523
Employment earning, four years prior reference week	-9.7E-06	2.36E-06	18.912	1	0	-0.1047	1
Self-selection correction factor	-0.9436	0.3543	7.0933	1	0.0077	-0.0812	0.3892
Indicator of SEA group	-0.492	0.1922	6.5544	1	0.0105	-0.0579	0.6114
Constant	-0.2021	0.5222	0.1498	1	0.6967		

Methodological Note

The estimated logit coefficients show the relationship between the log of odds of an event and our designated explanatory variables. However, it is always easier to think of probability, rather than the log of odds. To facilitate the interpretation of our logit models, we also transform the coefficients into the rates of change in probability associated with one unit change in the explanatory variables.

The discrete change in the probability, P_i , as a result of one unit increase in the dummy explanatory variables, x_i (i.e., $x_i = 1$) can be calculated as

$$\Delta P_i = \left[\frac{1}{1 + e^{-(b_0 + x_1 b_1 + x_2 b_2 + \dots + x_k b_k) - b_i \Delta x_i}} \right] P$$

where $\Delta x_i = 1$

k is the number of explanatory variables

P is an assumed probability that implies a corresponding value of $b_0 + x_1 b_1 + x_2 b_2 + \dots + x_k b_k$.

Substitution the log of odds, $\ln(P/(1-P))$, for the expression of $b_0 + x_1 b_1 + x_2 b_2 + \dots + x_k b_k$, the change in probability equation can be rewritten as

$$\Delta P_i = \left[\frac{1}{1 + e^{\left(-\ln \frac{P}{1-P} \right) b_i}} \right] P$$

Thus, ΔP_i can be computed directly from the estimated logit coefficients, b_i , and the assumed value of P .

In our three logit regression analyses, we evaluate the change in probabilities of currently employment status, ever collect welfare after, and the survival rate of business at our survey sample's average employment rate ($P=0.744$), welfare collecting rate ($P=0.078$) and survival rate of business ($P=0.84$) respectively.

Table B.5
Total Weekly Earnings Inclusion Employment Earnings and Business Profits

Variable	B	SE B	Beta	T	Sig T
Male	95.57000	27.52000	0.00000	3.473	0.000
Weekly earnings of previous job	0.072007	0.000000	0.000001	70.570	0
Number of weeks employed, 24 months prior to the reference week	1.3003	0.370140	0.000023	3.502	0.0019
Number of weeks received UI: four years prior reference week	1.100000	0.340000	0.001023	3.192	0.0010
Interest in self employment	10.21000	0.307070	0.000033	3.329	0.001
Indicator of SEA group	212.0000	32.00000	0.140070	6.60	0
Weeks available: number of weeks between end of reference claim to week of interview	1.400004	0.400700	0.000003	3.50	0.0017
Age	-4.00004	1.300000	-0.00000	-3.000	0.0003
Some post secondary education	01.0007	20.00000	-0.0000	-0.010	0.990
Industry: other industries	-70.7000	30.20000	-0.00000	-2.317	0.0000
Constant	90.7000	70.00000		0.0	0.430

Table B.6
Difference of Total Weekly Earnings and Weekly Earnings Before

Variable	B	SE B	Beta	T	Sig T
Industry: Missing information	200.0001	40.70000	0.120000	5.007	0
Age	-3.00100	1.300000	-0.00000	-2.400	0.0120
Industry: Transportation	00.00217	41.70000	0.000003	2.304	0.0003
Male	100.0004	30.70001	0.070700	3.200	0.0003
Weekly earnings of previous job	-0.41000	0.000000	-0.10000	-7.000	0
Willingness of Risk Taking	10.00011	0.200000	0.000170	5.000	0.0000
Indicator of SEA group	100.000	10.00000	0.100000	10.00	0
Weeks available: number of weeks between end of reference claim to week of interview	1.007000	0.400000	0.000000	2.500	0.0007
Number of weeks received UI: four years prior reference week	0.700070	0.300000	0.000000	2.300	0.0010
Some post secondary education	-74.0000	30.00000	-0.00014	-2.400	0.0000
Interest in self employment	10.00000	0.300000	0.000120	3.007	0.001
Constant	-00.700	70.00000		-0.000	0.7000

Table B.7
Annual Personal Income

Variable	B	SE B	Beta	T	Sig T
Male	4879.884	485.4173	0.18042	5.39	0
Industry: other industries	-3686.56	881.7293	-0.11284	-4.478	0
Industry: Sales	-4887.31	896.8722	-0.10812	-4.388	0
Resided in British Columbia	3987.827	882.8275	0.08134	5.124	0
Married and spouse is not in labour force	2581.264	886.1929	0.05385	3.89	0.0001
High School graduate	-3382.37	888.4153	-0.12585	-4.68	0
Less than high school education	-3211.32	888.7827	-0.1182	-3.292	0
Some post secondary education	-2988.51	848.2158	-0.08412	-4.478	0
Industry: Transportation	-1588.98	888.7828	-0.04042	-2.388	0.017
Industry: Public sectors	-1254.98	842.8823	-0.052	-1.82	0.0049
Number of weeks employed, 24 months prior to the reference week	48.87877	8.888825	0.004895	5.385	0
Weeks available: number of weeks between end of reference claim to week of interview	36.77481	7.000158	0.00382	5.253	0
Employment earning: four years prior reference week	0.063888	0.004027	0.363004	18.583	0
Number of weeks received UI: four years prior reference week	29.18847	5.724801	0.084788	3.915	0.0005
Indicator of SEA group	-1138.29	488.8887	-0.04344	-2.344	0.0182
Age	-71.8328	22.88538	-0.00088	-3.142	0.0012
Constant	15080.51	1104.748		13.68	0

Table B.8
Change in Financial Situation: Current Net Asset (Asset Minus Debt) Minus Net Asset Before

Variable	B	SE B	Beta	T	Sig T
Industry: Public sectors	1988.488	888.4778	0.042882	2.231	0.0288
Indicator of SEA group	-2817.84	823.885	-0.18385	-3.387	0
Constant	824.4726	288.3772		3.114	0.0048

Table B.5
Total Weekly Earning Including Employment Earnings and Business Profits

Variable	B	SE B	Beta	T	Sig T
Male	95.59596	27.92698	0.06485	3.423	0.0008
Weekly earnings of previous job	0.572275	0.053805	0.207821	10.878	0
Number of weeks employed, 24 months prior to the reference week	1.3583	0.570148	0.046523	2.382	0.0173
Number of weeks received UI: four years prior reference week	1.182002	0.349858	0.061623	3.152	0.0016
Interest in self employment	16.21533	6.287078	0.050133	2.579	0.01
Indicator of SEA group	212.5885	32.80828	0.140673	6.48	0
Weeks available: number of weeks between end of reference claim to week of interview	1.428994	0.453706	0.063063	3.15	0.0017
Age	-4.09838	1.335328	-0.05558	-3.089	0.0022
Some post secondary education	-91.5457	35.02969	-0.0488	-2.613	0.009
Industry: other industries	-78.7058	36.22585	-0.03828	-2.117	0.0343
Constant	58.7489	70.90699		0.8	0.4238

Table B.6
Difference of Total Weekly Earnings and Weekly Earnings Before

Variable	B	SE B	Beta	T	Sig T
Industry: Missing information	308.8241	48.78195	0.122445	6.597	0
Age	-3.36188	1.353632	-0.04893	-2.498	0.0125
Industry: Transportation	95.58217	41.13325	0.042953	2.324	0.0202
Male	106.6384	28.2921	0.073786	3.769	0.0002
Weekly earnings of previous job	-0.41943	0.053543	-0.15584	-7.833	0
Willingness of Risk Taking	18.42411	8.960073	0.038178	2.058	0.0399
Indicator of SEA group	185.501	33.44059	0.125587	5.547	0
Weeks available: number of weeks between end of reference claim to week of interview	1.267809	0.458313	0.057244	2.768	0.0057
Number of weeks received UI: four years prior reference week	0.708376	0.328672	0.040528	2.155	0.0312
Some post secondary education	-74.8268	35.38417	-0.03914	-2.115	0.0345
Interest in self employment	12.68624	8.383955	0.040129	1.987	0.047
Constant	-28.702	78.69305		-0.339	0.7344

Table B.7
Annual Personal Incomes

Variable	B	SE B	Beta	T	Sig T
Male	4629.654	463.4173	0.18042	9.99	0
Industry: other industries	-3896.55	601.7293	-0.11204	-6.476	0
Industry: Sales	-4357.31	690.6722	-0.10812	-6.309	0
Resided in British Columbia	3087.827	602.6275	0.08134	5.124	0
Married and spouse is not in labour force	2591.284	666.1926	0.083865	3.89	0.0001
High School graduate	-3382.37	595.4153	-0.12593	-6.09	0
Less than high school education	-3211.32	606.7827	-0.1162	-5.292	0
Some post secondary education	-2855.51	646.2158	-0.08412	-4.419	0
Industry: Transportation	-1586.98	668.7938	-0.04042	-2.388	0.017
Industry: Public sectors	-1234.56	642.8629	-0.0352	-1.92	0.0549
Number of weeks employed, 24 months prior to the reference week	48.07977	8.994625	0.094895	5.345	0
Weeks available; number of weeks between end of reference claim to week of interview	36.77491	7.000156	0.09352	5.253	0
Employment earning; four years prior reference week	0.083905	0.004527	0.353554	18.563	0
Number of weeks received UI; four years prior reference week	20.10947	5.724801	0.064798	3.513	0.0005
Indicator of SEA group	-1139.29	486.0697	-0.04344	-2.344	0.0192
Age	-71.8328	22.09539	-0.05598	-3.242	0.0012
Constant	15090.51	1104.745		13.66	0

Table B.8
Change in Financial Situation: Current Net Asset (Asset Minus Debt) Minus Net Asset Before

Variable	B	SE B	Beta	T	Sig T
Industry: Public sectors	1560.498	699.4776	0.042583	2.231	0.0258
Indicator of SEA group	-2817.84	523.055	-0.10283	-5.387	0
Constant	624.4724	295.3772		2.114	0.0348

Table B.9
Self-Employment Earnings

Variable	B	SE B	Beta	T	Sig T
Industry: Sale	2858.014	559.7126	0.160845	5.106	0
Male	1628.857	452.7046	0.114777	3.598	0.0003
Resided in Atlantic provinces	1131.402	496.2059	0.07111	2.271	0.0234
Some post secondary education	-1084.95	526.0912	-0.06522	-2.081	0.0377
Amount of equity investment of the business	0.049452	0.010461	0.15175	4.727	0
Indicator of SEA group	216.4878	649.8463	0.010438	0.333	0.7391
Age	-49.9339	24.63468	-0.06417	-2.027	0.0429
Constant	1926.734	1151.535		1.673	0.0946

Table B.10
Monthly Business Profit: Sales Minus All Expenses

Variable	B	SE B	Beta	T	Sig T
Industry: Sale	2751.608	611.0113	0.143137	4.503	0
Some post secondary education	-1528.05	574.7235	-0.08416	-2.66	0.0079
Male	958.8158	494.4225	0.06245	1.939	0.0528
Resided in Atlantic provinces	1317.786	544.0308	0.076556	2.422	0.0158
Amount of equity investment of the business	0.047174	0.011303	0.133805	4.174	0
Indicator of SEA group	-428.606	709.2271	-0.0191	-0.604	0.5458
Constant	260.4195	761.1407		0.342	0.7323

Table B.11
Satisfaction of Life

Variable	B	SE B	Beta	T	Sig T
Married and spouse is employed	0.246814	0.045702	0.109058	5.396	0
Married and spouse is not in labour force	0.25224	0.071478	0.069084	3.529	0.0004
Age	-0.00738	0.00214	-0.06413	-3.451	0.0006
Married and spouse is unemployed	-0.19431	0.082316	-0.0432	-2.361	0.0183
Number of weeks employed, 24 months prior to the reference week	0.002642	0.000818	0.05794	3.231	0.0012
Willingness of Risk Taking	0.060837	0.01315	0.08097	4.626	0
Indicator of SEA group	0.305125	0.042778	0.129292	7.133	0
Male	-0.15109	0.04325	-0.06543	-3.493	0.0005
Resided in Atlantic provinces	0.10095	0.043489	0.040902	2.321	0.0203
Employment earning, four years prior reference week	1.12E-06	4.26E-07	0.052304	2.621	0.0088
Less than high school education	0.090234	0.045023	0.036284	2.004	0.0451
Constant	4.788805	0.101857		47.015	0

Table B.12
Confidence in Labour Market

Variable	B	SE B	Beta	T	Sig T
Age	-0.02207	0.00183	-0.19656	-12.059	0
Whether respondent with managerial or supervisory experience	0.189051	0.03621	0.078707	4.689	0
Resided in Atlantic provinces	-0.14128	0.039582	-0.05871	-3.569	0.0004
High school graduate	-0.13302	0.039921	-0.05645	-3.332	0.0009
Whether received any training or counselling	0.218056	0.038812	0.090689	5.618	0
Number of weeks employed, 24 months prior to the reference week	0.003528	0.000742	0.079368	4.756	0
Willingness of Risk Taking	0.116301	0.012189	0.158766	9.541	0
Interest in self employment	0.052805	0.008705	0.10723	6.068	0
Indicator of SEA group	0.242209	0.041575	0.10527	5.826	0
Industry: Public sectors	-0.11792	0.050156	-0.03832	-2.351	0.0188
Some post secondary education	-0.11263	0.050671	-0.03782	-2.223	0.0263
Industry: Sale	0.115622	0.057863	0.032702	2.005	0.045
Constant	5.280133	0.100412		52.585	0

Table B.9
Self-Employment Earnings

Variable	B	SE B	Beta	T	Sig T
Industry: Sale	2028.814	858.7128	0.188846	2.360	0
Male	1829.887	452.7546	0.114777	2.896	0.0080
Resided in Atlantic provinces	1131.482	498.2869	0.07111	2.271	0.0294
Some post secondary education	-1084.85	526.8912	-0.08522	-2.061	0.0377
Amount of equity investment of the business	0.048462	0.010461	0.15175	4.727	0
Indicator of SEA group	216.4878	846.8483	0.010438	0.303	0.7591
Age	-49.8339	24.83488	-0.08417	-2.027	0.0429
Constant	1826.734	1151.535		1.673	0.0946

Table B.10
Monthly Business Profit: Sales Minus All Expenses

Variable	B	SE B	Beta	T	Sig T
Industry: Sale	2751.868	811.0113	0.143137	3.503	0
Some post secondary education	-1529.05	574.7235	-0.08418	-2.68	0.0079
Male	956.8158	484.4225	0.08245	1.939	0.0528
Resided in Atlantic provinces	1317.788	544.8308	0.078556	2.422	0.0158
Amount of equity investment of the business	0.047174	0.011303	0.133885	4.174	0
Indicator of SEA group	-428.806	708.2271	-0.0191	-0.604	0.5468
Constant	288.4195	781.1467		0.342	0.7323

Table B.11
Satisfaction of Life

Variable	B	SE B	Beta	T	Sig T
Married and spouse is employed	0.249815	0.045702	0.189988	5.438	0
Married and spouse is not in labour force	0.20520	0.071478	0.088888	2.878	0.004
Age	-0.00726	0.002174	-0.00415	-3.33	0.000
Married and spouse is unemployed	-0.10431	0.033318	-0.035	-3.09	0.002
Number of weeks employed, 24 months prior to the reference week	0.000002	0.000018	0.00704	0.001	0.999
Willingness of Risk Taking	0.009037	0.013173	0.00667	0.508	0
Indicator of SEA group	0.000125	0.043779	0.000002	0.003	0
Male	-0.15180	0.04325	-0.05043	-3.402	0.000
Resided in Atlantic provinces	0.10885	0.043468	0.04002	2.501	0.012
Employment earning: four years prior reference week	1.12E-06	4.38E-07	0.000004	0.001	0.999
Less than high school education	0.000004	0.040003	0.000004	0.004	0.999
Constant	4.708859	0.161867		47.915	0

Table B.12
Confidence in Labour Market

Variable	B	SE B	Beta	T	Sig T
Age	-0.00307	0.00183	-0.00188	-12.899	0
Whether respondent with managerial or supervisory experience	0.188881	0.03621	0.276707	5.209	0
Resided in Atlantic provinces	-0.14129	0.030002	-0.05071	-4.708	0.000
High school graduate	-0.15382	0.000001	-0.00000	-3.302	0.000
Whether received any training or counselling	0.210008	0.030013	0.06668	6.978	0
Number of weeks employed, 24 months prior to the reference week	0.000008	0.000042	0.000002	0.198	0
Willingness of Risk Taking	0.110081	0.043168	0.100008	2.541	0
Interest in self employment	0.000005	0.040789	0.00705	0.005	0
Indicator of SEA group	0.242388	0.041075	0.10001	5.888	0
Industry: Public sectors	-0.11752	0.000104	-0.00002	-2.381	0.018
Some post secondary education	-0.11583	0.000071	-0.00702	-3.323	0.000
Industry: Sale	0.110002	0.007083	0.00702	0.005	0.999
Constant	5.280123	0.108412		48.688	0

Table B.13
Change in Hours of Work: Difference of the Hours of Work in Jobs After and Before Program

Variable	B	SE B	Beta	T	Sig T
Industry: Missing information	2.29466	1.20023	0.026731	2.369	0.0273
Male	3.78876	0.327691	0.194633	9.675	0
Hours work per week before	-0.465	0.001688	-0.25843	-14.561	0
Interest in self employment	0.370604	0.142879	0.042392	2.601	0.0098
Willingness of Risk Taking	0.00273	0.198839	0.077987	0.234	0
Indicator of SEA group	13.28118	0.676679	0.362971	19.637	0
Number of weeks received UI: four weeks prior reference week	0.018688	0.007258	0.043853	2.602	0.0093
Constant	10.84881	1.481814		7.188	0

Table B.14
Hours of Work Current Job

Variable	B	SE B	Beta	T	Sig T
Male	3.34315	0.02821	0.066666	9.339	0
Hours work per week before	0.963438	0.001822	0.268913	17.768	0
Interest in self employment	0.383713	0.14286	0.046881	2.69	0.0072
Willingness of Risk Taking	0.76791	0.189711	0.051328	3.848	0.0001
Indicator of SEA group	13.85211	0.088027	0.362257	26.768	0
Resided in Atlantic provinces	2.835519	0.004785	0.048131	3.888	0.002
Resided in Quebec	1.900085	0.005389	0.033325	2.988	0.0036
Constant	10.32917	1.465888		6.985	0

Table B.15
Number of Full Time Jobs Created

Variable	B	SE B	Beta	T	Sig T
Whether respondent with managerial or supervisory experience	0.218837	0.072084	0.71729	3.049	0.0027
Industry: Construction	0.136868	0.136486	0.707778	1.000	0.3064
Industry: Transportation	-0.322294	0.106191	-0.90729	-2.600	0.009
Resided in Atlantic provinces	0.262254	0.082427	0.884699	3.200	0.0023
Resided in Quebec	0.224482	0.118112	0.888643	1.837	0.0419
Amount of equity investment of the business	1.016-05	1.085-05	0.147067	0.000	0
Number of weeks employed, 24 months prior to the reference week	0.004188	0.001791	0.888627	1.990	0.0167
Whether received any training or counselling	0.173888	0.063882	0.888631	2.699	0.0088
Whether received loan from bank	0.228888	0.087721	0.888611	3.004	0.0020
Indicator of SEA group	0.076822	0.117798	0.817888	0.591	0.5191
Constant	-4.12884	0.12942		-3.188	0.002

Table B.16
Number of Part Time Jobs Created

Variable	B	SE B	Beta	T	Sig T
Whether respondent with managerial or supervisory experience	0.300707	0.098118	0.888248	3.073	0.0004
Industry: Transportation	-0.28888	0.12881	-0.88882	-2.280	0.0284
Industry: Manufacture	-0.3188	0.143788	-0.88812	-2.210	0.0300
Amount of equity investment of the business	1.045-05	1.085-05	0.888643	0.100	0.9175
Whether received loan from family or friends	0.301884	0.104888	0.887887	2.84	0.0040
Whether received loan from government	0.388884	0.178488	0.888884	2.183	0.0300
Whether received loan from bank	0.338888	0.118888	0.88888	2.888	0.0040
Indicator of SEA group	-0.88888	0.148887	-0.88818	-5.988	0.0000
Constant	0.331721	0.178888		1.838	0.068

Table B.13

Change in Hours of Work: Difference of the Hours of Work in Jobs After and Before Program

Variable	B	SE B	Beta	T	Sig T
Industry: Missing information	2.294958	1.03929	0.038781	2.208	0.0273
Male	3.750079	0.827891	0.104833	5.975	0
Hours work per week before	-0.485	0.031958	-0.25843	-14.551	0
Interest in self employment	0.370504	0.142979	0.047342	2.591	0.0096
Willingness of Risk Taking	0.90323	0.199639	0.077587	4.524	0
Indicator of SEA group	13.26118	0.678679	0.362871	19.597	0
Number of weeks received UI: four weeks prior reference week	0.018888	0.007259	0.043653	2.602	0.0093
Constant	10.64861	1.481814		7.186	0

Table B.14

Hours of Work Current Job

Variable	B	SE B	Beta	T	Sig T
Male	3.34315	0.62621	0.086888	5.339	0
Hours work per week before	0.563439	0.031822	0.288913	17.708	0
Interest in self employment	0.383715	0.14286	0.048591	2.69	0.0072
Willingness of Risk Taking	0.76791	0.199711	0.081336	3.845	0.0001
Indicator of SEA group	13.85211	0.666027	0.352257	20.798	0
Resided in Atlantic provinces	2.020519	0.654768	0.049131	3.086	0.002
Resided in Quebec	1.900085	0.905389	0.033325	2.099	0.0399
Constant	10.32917	1.495809		6.905	0

Table B.15
Number of Full Time Jobs Created

Variable	B	SE B	Beta	T	Sig T
Whether respondent with managerial or supervisory experience	0.210337	0.079394	0.71729	2.649	0.0082
Industry: Construction	0.538859	0.135405	0.107779	3.965	0.0001
Industry: Transportation	-0.22294	0.106191	-0.05729	-2.099	0.038
Resided in Atlantic provinces	0.283334	0.082427	0.084983	3.086	0.0022
Resided in Quebec	0.234462	0.115112	0.058943	2.037	0.0419
Amount of equity investment of the business	1.01E-05	1.88E-08	0.147467	5.429	0
Number of weeks employed, 24 months prior to the reference week	0.004148	0.001781	0.003857	2.395	0.0187
Whether received any training or counselling	0.172628	0.082652	0.058831	2.089	0.0389
Whether received loan from bank	0.320588	0.087721	0.099411	3.654	0.0003
Indicator of SEA group	0.076267	0.117158	0.017535	0.851	0.5151
Constant	-0.12704	0.12743		-0.997	0.319

Table B.16
Number of Part Time Jobs Created

Variable	B	SE B	Beta	T	Sig T
Whether respondent with managerial or supervisory experience	0.352527	0.098078	0.098248	3.53	0.0004
Industry: Transportation	-0.38858	0.13491	-0.07583	-2.732	0.0064
Industry: Manufacture	-0.3183	0.142789	-0.08113	-2.215	0.0289
Amount of equity investment of the business	5.84E-08	2.35E-08	0.008543	2.523	0.0118
Whether received loan from family or friends	0.551884	0.194308	0.077387	2.84	0.0048
Whether received loan from government	0.395878	0.170454	0.083388	2.323	0.0203
Whether received loan from bank	0.238898	0.116846	0.05898	2.184	0.0308
Indicator of SEA group	-0.03998	0.148627	-0.00738	-0.269	0.7878
Constant	0.331721	0.195391		2.138	0.033

Table B.17
Business Survival Rate: Whether Business Still Operating

	Chi-Square	df	Significance				
-2 Log Likelihood	935.134	1136	1.000				
Goodness of Fit	1189.898	1136	.1307				
Variable	B	S.E.	Wald	df	Sig.	R	
Industry: Transportation	-0.4291	0.2173	3.8983	1	0.0483	-0.0451	
Whether received any training or counselling	0.5506	0.1927	8.1802	1	0.0043	0.0612	
Week started business in UIC code	0.0039	0.0014	7.4534	1	0.0063	0.0764	
Amount of equity investment of the business	0.000017	5.99E-06	8.0975	1	0.0044	0.0007	
Number of weeks received UI: four years prior reference week	-0.0051	0.0022	5.1681	1	0.023	-0.0582	
Indicator of SEA group	-0.4399	0.2055	2.3743	1	0.1233	-0.02	
Constant	-3.3848	1.9954	2.8948	1	0.0889		

Table B.18
Rate of Return: Self-Employment Earnings Divided by Amount of Equity Invested

Variable	B	S.E. B	Beta	T	Sig. T
Employment earning: four years prior reference week	1.30E-05	5.29E-06	0.007323	2.82	0.0089
Whether received loan from family or friends	4.503958	1.208612	0.121904	3.733	0.0002
Indicator of SEA group	-0.04828	0.921325	-0.00175	-0.053	0.9574
Whether respondent with managerial or supervisory experience	-1.41305	0.629964	-0.07445	-2.243	0.0251
Language: French	4.084831	1.231408	0.177018	3.317	0.0009
Resided in Quebec	-3.54402	1.424845	-0.13299	-2.487	0.0131
Constant	-0.02719	0.972675		-0.028	0.9777

Table B.19
Number of Paid Employment Months Created

Variable	B	SE B	Beta	T	Sig T
Industry: Transportation	-2.58111	1.108899	-0.08329	-2.328	0.0202
Industry: Manufacture	-3.46388	1.173397	-0.07979	-2.952	0.0032
Resided in Atlantic provinces	3.511927	1.043477	0.100408	3.386	0.0008
Language: French	2.366283	1.081073	0.063327	2.189	0.0288
Resided in Prairie provinces	2.059863	0.97657	0.065872	2.109	0.0351
Amount of equity investment of the business	0.000119	1.93E-05	0.166231	6.184	0
Number of weeks employed, 24 months prior to the reference week	0.062891	0.018204	0.092535	3.455	0.0006
Whether received loan from bank	4.412324	0.91862	0.130564	4.803	0
Whether received loan from family or friends	4.268532	1.584278	0.071387	2.678	0.0075
Indicator of SEA group	0.82816	1.220598	0.01812	0.677	0.4988
Constant	-0.26805	1.334415		-0.201	0.8408

Table B.20
Amount of UI Received During the Reference Period

Variable	B	SE B	Beta	T	Sig T
Whether respondent with managerial or supervisory experience	484.5971	212.719	0.023475	2.278	0.0228
Resided in Atlantic provinces	974.7073	247.6454	0.043248	3.938	0.0001
Resided in British Columbia	-974.658	321.5311	-0.03124	-3.031	0.0025
Weeks available: number of weeks between end of reference claim to week of interview	-58.3004	3.655205	-0.18043	-15.952	0
Number of weeks employed, 24 months prior to the reference week	-20.298	4.798488	-0.04875	-4.23	0
Whether received any training or counselling	568.9328	226.3251	0.025281	2.514	0.012
Employment earning: four years prior reference week	-0.01031	0.00275	-0.05285	-3.748	0.0002
Amount of UI received: 4 yrs. prior reference claim	0.048472	0.012491	0.048037	3.721	0.0002
Interest in self employed	-200.257	50.95857	-0.04342	-3.93	0.0001
Willingness of Risk Taking	138.0517	70.91642	0.02012	1.947	0.0517
Amount of insurable earnings	1.138534	0.042614	0.387873	27.051	0
Indicator of SEA group	12975.92	268.931	0.002057	48.611	0
Married and spouse is not in labour force	-797.851	338.8548	-0.02392	-2.355	0.0188
Number of insurable weeks	-23.3082	10.17727	-0.03321	-2.29	0.0221
Constant	1804.248	808.3723		2.637	0.0084

Table B.12
Business Survival Rate: Whether Business Still Operating

	Chi-Square	df	Significance				
-2 Log Likelihood	988.705	1128	1.000				
Goodness of Fit	1106.395	1128	1.007				
Variable	B	S.E.	Wald	df	Sig.	R	
Industry: Transportation	-0.4391	0.21723	4.0903	1	0.0445	-.0051	
Whether received any training or counselling	0.0000	0.10007	0.1000	1	0.7340	0.0012	
Week started business in UIC code	0.0000	0.0014	7.0000	1	0.0000	0.0764	
Amount of equity investment of the business	0.000017	0.000005	0.0076	1	0.9300	0.0000	
Number of weeks received UI: four years prior reference week	-0.0001	0.00002	0.1000	1	0.7340	-0.0000	
Indicator of SEA group	-0.4391	0.21723	4.0903	1	0.0445	-0.00	
Constant	-2.0000	1.0000	7.0000	1	0.0000		

Table B.13
Rate of Return: Self-Employment Earnings Divided by Amount of Equity Invested

Variable	B	SE B	Beta	T	Sig T
Employment earning: four years prior reference week	1.000000	1.000000	0.000000	0.00	0.9999
Whether received loan from family or friends	0.000000	0.000012	0.121000	0.700	0.4800
Indicator of SEA group	-0.0000	0.000005	-0.000000	-0.000	0.9999
Whether respondent with managerial or supervisory experience	-1.0000	0.000004	-0.000000	-1.000	0.3000
Language: French	0.000000	0.001000	0.177000	0.017	0.9900
Resided in Quebec	-1.0000	0.000004	-0.000000	-1.000	0.3000
Constant	-0.0000	0.000000		-0.000	0.9977

Table B.19
Number of Paid Employment Months Created

Variable	B	SE B	Beta	T	Sig T
Industry: Transportation	-3.89171	1.70808	-0.0025	-2.28	0.024
Industry: Manufacture	-3.46076	1.77391	-0.0079	-2.46	0.014
Resided in Atlantic provinces	3.811837	1.503437	0.14998	2.56	0.009
Language: French	3.390295	1.361893	0.022251	2.46	0.014
Resided in Prairie provinces	3.89963	0.97987	0.049673	3.96	0.0001
Amount of equity investment of the business	0.000119	1.49E-05	0.000002	0.004	0
Number of weeks employed, 24 months prior to the reference week	0.070991	0.018294	0.002668	3.89	0.0002
Whether received loan from bank	0.472834	0.07982	0.126664	5.92	0
Whether received loan from family or friends	4.299523	1.064276	0.071387	4.07	0.0005
Indicator of SEA group	0.02819	1.220008	0.01812	0.27	0.786
Constant	-4.3983	1.334415		-3.29	0.0009

Table B.20
Amount of UI Received During the Reference Period

Variable	B	SE B	Beta	T	Sig T
Whether respondent with managerial or supervisory experience	484.9871	212.719	0.023475	2.29	0.024
Resided in Atlantic provinces	874.7073	247.9464	0.040246	3.53	0.0004
Resided in British Columbia	-974.808	321.3311	-0.02134	-3.02	0.0025
Weeks available: number of weeks between end of reference claim to week of interview	-55.3364	2.088028	-0.14962	-26.92	0
Number of weeks employed, 24 months prior to the reference week	-35.258	4.768488	-0.04673	-4.23	0
Whether received any training or counselling	586.9204	128.3031	0.020381	4.54	0.0002
Employment earning: four years prior reference week	-0.07081	0.00276	-0.0023	-2.56	0.009
Amount of UI received: 4 yrs. prior reference claim	0.000472	0.013481	0.000007	0.03	0.986
Interest in self employed	-286.287	96.9987	-0.04946	-2.95	0.003
Willingness of Risk Taking	138.0512	76.97642	0.02073	1.8	0.077
Amount of insurable earnings	1.139034	0.040314	0.000004	27.81	0
Indicator of SEA group	12879.45	395.837	0.020007	48.01	0
Married and spouse is not in labour force	-787.881	238.8048	-0.02022	-3.29	0.0009
Number of insurable weeks	-23.3982	16.17727	-0.00081	-1.45	0.148
Constant	1896.248	558.3728		3.38	0.0009

Table B.21
Number of Weeks Received UI During the Reference Claim

Variable	B	SE B	Beta	T	Sig T
Industry: Missing information	2.800773	1.340221	0.000001	2.09	0.0402
Weeks available: number of weeks between end of reference claim to week of interview	-0.21167	0.009801	-0.29422	-21.96	0
Whether received any training or counselling	0.070208	0.009228	0.047532	7.59	0
Number of weeks employed, 24 months prior to the reference week	-0.0004	0.004004	-0.00000	-3.071	0.0021
Interest in self employed	-0.00713	0.140045	-0.00029	-3.33	0.0018
Indicator of SEA group	28.00001	0.373340	0.000100	90.275	0
Employment earning: four years prior reference week	-4.9E-05	0.51E-05	-0.000	-7.207	0
Resided in Atlantic provinces	2.000003	0.000023	0.00023	4.074	0
Age	0.000000	0.001029	0.002700	2.321	0.0204
Number of insurable week	0.000431	0.000000	0.00000	2.700	0.0087
Constant	37.00001	1.772111		21.138	0

Table B.22
Amount of UI Received After Reference Claim Till June 1994

Variable	B	SE B	Beta	T	Sig T
Resided in Atlantic provinces	1270.225	173.0700	0.107000	7.120	0
Industry: Sale	-1110.47	203.0343	-0.00000	-3.775	0.0002
Industry: Missing information	-1000.4	220.1943	-0.00225	-3.140	0.0017
Male	290.4007	100.3003	0.002000	1.800	0.0400
Language: French	010.2004	107.0070	0.000331	4.120	0
Industry: Transportation	-1107.0	203.2072	-0.00077	-4.910	0.0001
Industry: other industries	-1017.04	200.7400	-0.00701	-3.970	0.0001
Industry: Manufacture	-870.07	203.0302	-0.04704	-2.804	0.0010
Industry: Public sectors	-100.700	270.0032	-0.00000	-3.400	0.0000
Weeks available: number of weeks between end of reference claim to week of interview	-0.30704	0.000011	-0.300021	-70.310	0
Number of weeks employed, 24 months prior to the reference week	-0.00000	0.000004	-0.00000	-2.000	0.0110
Amount of UI received 4 yrs. prior reference claim	0.140007	0.000001	0.007132	10.000	0
Employment earning: four years prior reference week	0.000001	0.000000	0.071727	4.1	0
Indicator of SEA group	-300.10	100.0001	-0.00070	-70.004	0
Whether received any training or counselling	070.0101	170.0000	0.001001	2.210	0.0000
Constant	-100.7	200.0010		-0.000	0.0000

Table B 23
Number of Weeks Received UI After Reference Claim Till June 1994

Variable	B	SE B	Beta	T	Sig T
Resided in Atlantic provinces	0.81008	0.62273	0.239476	0.873	0
Language: French	1.761386	0.66666	0.677687	2.643	0.0091
Industry: Missing information	-2.43476	1.10862	-0.4096	-2.1	0.040
Industry: Sale	-2.85778	0.995491	-0.40386	-2.86	0.0079
Industry: Transportation	-3.8448	0.97481	-0.56188	-3.94	0.0002
Industry: Manufacture	-2.50872	0.961962	-0.34134	-2.60	0.0114
Industry: Public sectors	-2.88747	0.88984	-0.3946	-3.250	0.0011
Industry: other industries	-2.83886	0.874528	-0.40625	-3.257	0.0017
Weeks available: number of weeks between end of reference claim to week of interview	0.148182	0.006672	0.261127	19.435	0
Number of weeks employed, 24 months prior to the reference week	-0.09636	0.012585	-0.07624	-4.836	0
Number of weeks received UI: four years prior reference week	0.058647	0.007979	0.20618	11.702	0
Indicator of SEA group	-0.99138	0.006636	-0.25217	-15.126	0
Constant	4.260511	0.00662		4.372	0

Table B 24
Ever Received Any UI After Reference Claim Till June 1994

	Chi-Square	df	Significance
-2 Log Likelihood	2713.369	2008	.0000
Model Chi-Square	18.882	13	.1294
Improvement	-3.422	1	.0651
Goodness of Fit	2988.288	2008	.0000

Variable	B	S.E.	Wald	df	Sig	R
Less than high school education	0.3871	0.1187	10.624	1	0.0011	0.0009
High School graduate	0.2481	0.1127	4.7871	1	0.029	0.003
Language: French	0.8176	0.1231	25.1557	1	0	0.0027
Resided in Atlantic provinces	0.705	0.1049	57.8390	1	0	0.108
Industry: Transportation	-0.3874	0.1408	7.6028	1	0.0069	-0.0038
Weeks available: number of weeks between end of reference claim to week of interview	0.0125	0.0018	34.4413	1	0	0.1232
Amount of UI received: 4 yrs. prior reference claim	0.59848	0.23848	162.1761	1	0	0.2097
Indicator of SEA group	-0.6751	0.1428	361.2828	1	0	-0.2097
Constant	-1.5819	0.1487	108.8228	1	0	

Table B.21
Number of Weeks Received UI During the Reference Claim

Variable	B	SE B	Beta	T	Sig T
Industry: Missing information	2.862077	1.106281	0.026851	2.406	0.0182
Weeks available: number of weeks between end of reference claim to week of interview	-0.21101	0.010561	-0.24222	-19.98	0
Whether received any training or counselling	2.876258	0.654239	0.047372	4.396	0
Number of weeks employed, 24 months prior to the reference week	-0.0584	0.014204	-0.05025	-3.971	0.0001
Interest in self employed	-0.45718	0.146045	-0.03676	-3.13	0.0018
Indicator of SEA group	38.88031	0.773348	0.889198	50.275	0
Employment earning: four years prior reference week	-4.9E-05	8.51E-06	-0.093	-7.507	0
Resided in Atlantic provinces	2.808983	0.689433	0.04623	4.074	0
Age	0.092959	0.031828	0.032783	2.921	0.0035
Number of insurable week	0.069431	0.025088	0.03669	2.768	0.0057
Constant	37.45901	1.773111		21.126	0

Table B.22
Amount of UI Received After Reference Claim Till June 1994

Variable	B	SE B	Beta	T	Sig T
Resided in Atlantic provinces	1276.225	178.8788	0.107893	7.135	0
Industry: Sale	-1110.47	293.8243	-0.06389	-3.779	0.0002
Industry: Missing information	-1008.4	320.1943	-0.05225	-3.149	0.0017
Male	360.4067	180.3933	0.032566	1.998	0.0458
Language: French	818.7974	197.8379	0.060231	4.139	0
Industry: Transportation	-1137.8	283.2072	-0.06677	-4.018	0.0001
Industry: other industries	-1017.04	259.7485	-0.06781	-3.915	0.0001
Industry: Manufacture	-818.67	283.8382	-0.04724	-2.884	0.0039
Industry: Public sectors	-930.789	270.0632	-0.06154	-3.446	0.0006
Weeks available: number of weeks between end of reference claim to week of interview	42.82764	2.760411	0.252531	15.515	0
Number of weeks employed, 24 months prior to the reference week	-8.83894	3.623894	-0.04045	-2.439	0.0148
Amount of UI received 4 yrs. prior reference claim	0.148077	0.008641	0.287713	16.905	0
Employment earning: four years prior reference week	0.007341	0.001689	0.071727	4.4	0
Indicator of SEA group	-2632.16	190.2681	-0.23272	-13.834	0
Whether received any training or counselling	378.0161	170.4508	0.031981	2.218	0.0266
Constant	-105.7	328.0917		-0.322	0.7473

Table B.23
Number of Weeks Received UI After Reference Claim Till June 1994

Variable	B	SE B	Beta	T	Sig T
Resided in Atlantic provinces	5.613603	0.63273	0.135476	8.872	0
Language: French	2.761365	0.69394	0.057987	3.979	0.0001
Industry: Missing information	-3.43479	1.108032	-0.0508	-3.1	0.002
Industry: Sale	-2.66775	0.999401	-0.04382	-2.669	0.0078
Industry: Transportation	-3.6448	0.97461	-0.06106	-3.74	0.0002
Industry: Manufacture	-2.50972	0.991942	-0.04134	-2.53	0.0114
Industry: Public sectors	-2.88747	0.885994	-0.0545	-3.259	0.0011
Industry: other industries	-2.00968	0.874836	-0.03825	-2.297	0.0217
Weeks available: number of weeks between end of reference claim to week of interview	0.149192	0.009672	0.251127	15.425	0
Number of weeks employed, 24 months prior to the reference week	-0.05836	0.012589	-0.07624	-4.636	0
Number of weeks received UI: four years prior reference week	0.03847	0.007979	0.20016	11.762	0
Indicator of SEA group	-9.99139	0.660639	-0.25217	-15.124	0
Constant	4.202311	0.96362		4.272	0

Table B.24
Ever Received Any UI After Reference Claim Till June 1994

	Chi-Square	df	Significance				
-2 Log Likelihood	2713.385	2536	.0000				
Model Chi-Square	-18.802	13	.1294				
Improvement	-3.402	1	.0651				
Goodness of Fit	2993.360	2536	.0000				
Variable	B	SE	Wald	df	Sig	R	
Less than high school education	0.3871	0.1187	10.634	1	0.0011	0.0566	
High School graduate	0.2461	0.1127	4.7671	1	0.029	0.032	
Language: French	0.6176	0.1231	25.1557	1	0	0.0927	
Resided in Atlantic provinces	0.755	0.1049	51.8266	1	0	0.136	
Industry: Transportation	-0.3974	0.1495	7.0638	1	0.0079	-0.0433	
Weeks available: number of weeks between end of reference claim to week of interview	0.0125	0.0016	64.4413	1	0	0.1522	
Amount of UI received: 4 yrs. prior reference claim	6.58E-05	5.33E-06	152.1751	1	0	0.2361	
Indicator of SEA group	-2.6731	0.1426	351.3399	1	0	-0.3601	
Constant	-1.5019	0.1497	100.6389	1	0		

Table B.25
Percentage of Week Received UI After Reference Claim Till June 1994

Variable	B	SE B	Beta	T	Sig T
Resided in Atlantic provinces	0.117217	0.014358	0.135402	8.184	0
Less than high school education	0.052861	0.016169	0.080601	3.269	0.0011
High school graduate	0.031862	0.014812	0.037582	2.151	0.0315
Industry: Construction	0.044778	0.019239	0.036587	2.327	0.02
Language: French	0.03373	0.015718	0.033903	2.146	0.0319
Number of weeks received UI: four years prior reference week	0.001865	0.000169	0.190354	11.035	0
Indicator of SEA group	-0.26081	0.014918	-0.3152	-17.49	0
Weeks available: number of weeks between end of reference claim to week of interview	-0.00119	0.000219	-0.09549	-5.416	0
Age	0.001308	0.000644	0.32349	2.03	0.0425
Constant	0.167169	0.03082		5.424	0

Table B.26
Number of Weeks Received UI Within 12 Months After Reference Claim

Variable	B	SE B	Beta	T	Sig T
Resided in Atlantic provinces	4.32654	0.400722	0.161562	10.797	0
Language: French	2.288444	0.439287	0.074357	5.209	0
Industry: Missing information	-3.05379	0.792138	-0.06989	-4.349	0
Industry: Transportation	-2.93107	0.617617	-0.07598	-4.746	0
Industry: Manufacture	-2.23022	0.628621	-0.05684	-3.548	0.0004
Industry: Sale	-1.92255	0.633325	-0.04886	-3.036	0.0024
Industry: Public sectors	-2.57522	0.56159	-0.0752	-4.586	0
Industry: other industries	-1.65862	0.555935	-0.04884	-2.983	0.0029
Number of weeks employed, 24 months prior to the reference week	-0.04306	0.007982	-0.08704	-5.395	0
Week available: 12 mths. after ref. claim	0.083131	0.014244	0.088547	5.836	0
Number of weeks received UI: four years prior reference week	0.088084	0.005053	0.290683	17.433	0
Indicator of SEA group	-7.00516	0.401249	-0.27357	-17.458	0
Age	0.046846	0.017796	0.037496	2.632	0.0085
Constant	1.478696	1.03185		1.433	0.1519

Table B.27
Amount of UI Received Within 12 Months After Reference Claim

Variable	B	SE B	Beta	T	Sig T
Resided in Atlantic provinces	940.4339	111.8237	0.122432	8.41	0
Language: French	815.138	123.6207	0.089682	4.978	0
Male	308.8717	113.0484	0.042979	2.732	0.0063
Industry: Sale	-628.216	184.1177	-0.05548	-3.401	0.0007
Industry: Missing information	-788.641	200.7855	-0.06292	-3.928	0.0001
Industry: Transportation	-747.008	177.5783	-0.06751	-4.207	0
Industry: other industries	-679.007	182.8826	-0.07156	-4.279	0
Industry: Manufacture	-624.754	177.9857	-0.05552	-3.51	0.0005
Industry: Public sectors	-688.63	189.2938	-0.07013	-4.068	0
Number of weeks employed, 24 months prior to the reference week	-7.57331	2.272518	-0.05337	-3.333	0.0009
Week available: 12 mths. after ref. claim	25.57204	4.024014	0.094961	6.355	0
Amount of UI received: 4 yrs. prior reference claim	0.129396	0.005397	-0.392464	23.974	0
Indicator of SEA group	-1843.5	113.8384	-0.25099	-16.194	0
Employment earning: four years prior reference week	0.003534	0.001047	0.053186	3.375	0.0007
Constant	95.25805	248.9503		0.383	0.702

Table B.28
Percentage of Week Received UI 12 Months After Reference Claim

Variable	B	SE B	Beta	T	Sig T
Resided in Atlantic provinces	0.09953	0.009723	0.154915	10.237	0
Less than high school education	0.02155	0.009975	0.033289	2.16	0.0308
Language: French	0.055547	0.010631	0.075229	5.225	0
Industry: Missing information	-0.07453	0.018983	-0.07109	-4.388	0
Industry: Transportation	-0.06535	0.014999	-0.07081	-4.357	0
Industry: Manufacture	-0.05592	0.0152	-0.05941	-3.679	0.0002
Industry: Sale	-0.0437	0.015371	-0.0483	-2.843	0.0045
Industry: Public sectors	-0.06477	0.013816	-0.07884	-4.688	0
Industry: other industries	-0.04362	0.013451	-0.05354	-3.243	0.0012
Number of weeks employed, 24 months prior to the reference week	-0.00096	0.000193	-0.08092	-4.98	0
Number of weeks received UI: four years prior reference week	0.001967	0.000123	0.270531	15.944	0
Indicator of SEA group	-0.20283	0.00975	-0.33018	-20.803	0
Week available: 12 mths. after ref. claim	-0.00207	0.000344	-0.092	-6.018	0
Age	0.00118	0.000438	0.039382	2.894	0.0071
Constant	0.212078	0.024935		8.505	0

Table B 25
Percentage of Week Received UI After Reference Claim Till June 1993

Variable	B	SE B	Beta	T	Sig T
Resided in Atlantic provinces	0.117217	0.014200	0.120402	8.194	0
Less than high school education	0.052891	0.018199	0.000001	2.900	0.0031
High school graduate	0.021062	0.014812	0.027002	2.131	0.0319
Industry: Construction	0.046778	0.019006	0.000007	2.427	0.02
Language: French	0.03373	0.018718	0.032603	2.148	0.0319
Number of weeks received UI: four years prior reference week	0.001985	0.000186	0.190084	11.835	0
Indicator of SEA group	-0.28091	0.014918	-0.3152	-17.48	0
Weeks available: number of weeks between end of reference claim to week of interview	-0.00119	0.000219	-0.08948	-5.416	0
Age	0.001308	0.000044	0.32348	2.83	0.0025
Constant	0.187188	0.03082		6.074	0

Table B 26
Number of Weeks Received UI Within 12 Months After Reference Claim

Variable	B	SE B	Beta	T	Sig T
Resided in Atlantic provinces	4.32954	0.468722	0.181562	10.797	0
Language: French	2.388444	0.438287	0.074357	5.208	0
Industry: Missing information	-3.05378	0.702138	-0.08885	-4.348	0
Industry: Transportation	-2.96107	0.817617	-0.07506	-4.746	0
Industry: Manufacture	-2.23022	0.628621	-0.05684	-3.548	0.0004
Industry: Sale	-1.82255	0.833325	-0.04886	-3.036	0.0024
Industry: Public sectors	-1.57522	0.98188	-0.0752	-4.588	0
Industry: other industries	-1.63652	0.555825	-0.04884	-2.983	0.0029
Number of weeks employed, 24 months prior to the reference week	-0.04306	0.007982	-0.08784	-5.385	0
Week available: 12 mths. after ref. claim	0.080131	0.014244	0.086547	5.638	0
Number of weeks received UI: four years prior reference week	0.088084	0.000853	0.290883	17.433	0
Indicator of SEA group	-7.88518	0.401248	-0.27367	-17.458	0
Age	0.048046	0.017788	0.037488	2.832	0.0085
Constant	1.478886	1.03185		1.433	0.1519

Table B 27
Amount of UI Received Within 12 Months After Reference Claim

Variable	B	SE B	Beta	T	Sig T
Resided in Atlantic provinces	346.408	111.8137	0.129408	3.11	0
Language: French	615.136	123.8383	0.098882	4.976	0
Male	386.9717	113.0464	0.046876	3.432	0.0005
Industry: Sale	-628.216	184.1177	-0.05044	-3.401	0.0007
Industry: Missing information	-766.841	286.7688	-0.05382	-3.368	0.0001
Industry: Transportation	-747.888	177.8783	-0.07781	-4.207	0
Industry: other industries	-679.887	162.9638	-0.07708	-4.176	0
Industry: Manufacture	-604.754	177.9867	-0.06682	-3.51	0.0005
Industry: Public sectors	-486.83	188.2988	-0.07013	-4.888	0
Number of weeks employed, 24 months prior to the reference week	-7.57331	2.372818	-0.00237	-3.233	0.0009
Week available: 12 mths. after ref. claim	25.37204	4.004814	0.004881	6.335	0
Amount of UI received: 4 yrs. prior reference claim	0.178388	0.002387	0.363888	23.874	0
Indicator of SEA group	-1945.3	113.8384	-0.25889	-16.196	0
Employment earning: four years prior reference week	0.000004	0.000001	0.000168	3.375	0.0007
Constant	55.28856	146.3888		0.383	0.701

Table B 28
Percentage of Week Received UI 12 Months After Reference Claim

Variable	B	SE B	Beta	T	Sig T
Resided in Atlantic provinces	0.00883	0.008723	0.104815	10.017	0
Less than high school education	0.02185	0.008875	0.073288	2.46	0.0088
Language: French	0.055547	0.010651	0.073223	5.238	0
Industry: Missing information	-0.07453	0.016888	-0.07188	-4.388	0
Industry: Transportation	-0.08836	0.014888	-0.07881	-4.587	0
Industry: Manufacture	-0.08882	0.0152	-0.08841	-5.878	0.0008
Industry: Sale	-0.0437	0.013871	-0.0488	-3.182	0.0046
Industry: Public sectors	-0.04477	0.013818	-0.07884	-4.888	0
Industry: other industries	-0.04882	0.013881	-0.08884	-5.342	0.0012
Number of weeks employed, 24 months prior to the reference week	-0.00888	0.000183	-0.00888	-4.88	0
Number of weeks received UI: four years prior reference week	0.001887	0.000123	0.778881	15.344	0
Indicator of SEA group	-0.38883	0.00878	-0.32818	-39.888	0
Week available: 12 mths. after ref. claim	-0.00887	0.000044	-0.088	-4.012	0
Age	0.00118	0.000428	0.000888	2.888	0.0071
Constant	0.278878	0.000188		1.488	0

Table B.29
Ever Received Any UI 12 Months After Reference Claim

	Chi-Square	df	Significance				
-2 Log Likelihood	2068.988	2916	.0000				
Model Chi-Square	1138.158	11	.0000				
Improvement	1138.158	11	.0000				
Goodness of Fit	3087.450	2916	.0000				
Variable	B	S.E.	Wald	df	Sig.	R	Exp(B)
Less than high school education	0.5138	0.1194	18.5194	1	0	0.0959	1.6714
High School graduate	0.3588	0.1154	9.5887	1	0.002	0.0448	1.4287
Language: French	0.5375	0.1213	19.6438	1	0	0.0681	1.7117
Resided in Atlantic provinces	0.7841	0.1033	54.7348	1	0	0.1177	2.1471
Industry: Manufacture	-0.4472	0.1588	8.153	1	0.0043	-0.0402	0.6394
Industry: Sale	-0.3475	0.1881	4.4322	1	0.0353	-0.0253	0.7864
Industry: Transportation	-0.8518	0.1827	18.0396	1	0.0001	-0.0807	0.5212
Industry: other industries	-0.3	0.1332	5.0747	1	0.0243	-0.0284	0.7408
Week available: 12 mths. after ref. claim	0.0143	0.0044	10.5322	1	0.0012	0.0474	1.0144
Amount of UI received: 4 yrs. prior reference claim	6.73E-05	5.32E-06	160.3715	1	0	0.294	1.0001
Indicator of SEA group	-2.5984	0.1467	313.5342	1	0	-0.2861	0.0744
Constant	-1.6235	0.2388	48.2298	1	0		

Table B.30
Monthly Sales

Variable	B	SE B	Beta	T	Sig T
Industry: Sale	7203.04	1245.406	0.163027	5.784	0
Male	4797.247	1007.164	0.135946	4.763	0
Married and spouse is employed	2147.942	971.4274	0.06203	2.211	0.0272
Amount of equity investment of the business	0.119751	0.023122	0.147784	5.179	0
Number of weeks employed, 24 months prior to the reference week	70.05237	21.55814	0.091126	3.249	0.0012
Interest in self employed	575.3237	285.3554	0.060932	2.168	0.0303
Whether received loan from bank	2144.334	1078.813	0.056098	1.988	0.0471
Indicator of SEA group	-123.854	1448.363	-0.0024	-0.088	0.9319
Constant	-3863.94	2178.862		-1.882	0.0928

Table B.29
Firm Received Any UI 12 Months After Reference Claim

	Chi-Square	df	Significance
-2 Log Likelihood	288.569	279	.000
Model Chi-Square	1738.138	11	.000
Improvement	1738.138	11	.000
Goodness of Fit	288.569	279	.000

Variable	B	S.E.	Wald	df	Sig.	R	Exp(B)
Less than high school education	0.8135	0.1184	18.8804	1	.0	0.8883	1.8714
High School graduates	0.3882	0.1184	9.8862	1	.002	0.9448	1.4887
Language: French	0.2575	0.1213	19.8433	1	.0	0.9881	1.7112
Resided in Atlantic provinces	0.7041	0.1088	58.7585	1	.0	0.1177	2.1421
Industry: Manufacture	-0.4072	0.1388	6.128	1	0.003	-0.9482	0.5084
Industry: Sale	-0.5079	0.1681	6.4283	1	0.001	-0.8888	0.7084
Industry: Transportation	-0.8816	0.1681	18.8888	1	0.001	-0.9887	0.3212
Industry: other industries	-0.3	0.1282	5.0747	1	0.024	-0.8884	0.7488
Week available: 12 mths. after ref. claim	0.2143	0.2884	18.8883	1	0.002	0.8174	1.8184
Amount of UI received: 4 yrs. prior reference claim	0.79888	0.288888	188.2718	1	.0	0.384	1.8881
Indicator of SEA group	-2.9888	0.1887	213.8842	1	.0	-0.8887	0.8744
Constant	-1.8888	0.3888	48.2888	1	.0		

Table B.30
Monthly Sales

Variable	B	SE B	Beta	T	Sig T
Industry: Sale	7282.84	1348.488	0.183827	5.784	.0
Male	4787.267	1887.184	0.128848	4.783	.0
Married and spouse is employed	2147.942	871.4274	0.08283	2.211	0.0272
Amount of equity investment of the business	8.118751	0.023122	0.147784	3.179	.0
Number of weeks employed, 24 months prior to the reference week	79.88237	21.88814	0.001128	3.248	0.0012
Interest in self employed	575.3237	288.2584	0.008832	2.188	0.0383
Whether received loan from bank	2144.324	1878.812	0.058888	1.888	0.0471
Indicator of SEA group	-123.854	1448.283	-0.0004	-0.888	0.3519
Constant	-3882.94	2178.882		-1.882	0.0888

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